Clinical Lecture
ON THE
TREATMENT OF PHTHISIS.

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GENTLEMEN,—The theoretical lectures and the post-mortem room have rendered you familiar with the nature and appearances of tubercle, and in speaking to you to-day I shall presume that you are now cognisant with any technical terms and phraseology that may be used. In whatever way tubercle may be formed or deposited in the lung, the diagnosis of its existence there can be established not by relying on one, but upon many aids—by percussion, by auscultation, by the thermometer, by the previous history and present condition of the patient. By a combination of the data afforded by these means you are justified in assuming that you have to do with a case of phthisis, either in its earlier or its later stages; and the important consideration is consequently forced on you—Can you do anything to arrest its progress, or are you simply to look upon it as an incurable malady, and content yourself with palliative or expectant treatment? These inquiries suggest another still more pertinent and searching—namely, is the case of phthisis you have to do with one which is dependent on hereditary transmission, or is it the direct result of debilitating influences engendered by previous inflammation of the lungs, or by the peculiar nature of the employment? An illustration will bring out more fully what is here meant.

A servant-girl, aged eighteen, is admitted to the hospital. Though hard-worked, she is well-fed and fairly clad; yet she tells you her father or mother died of a decline, and that she has become unable to work, that her sleep is tormented with a nasty cough, that she cannot rise in the morning, that her appetite is gone, that her catamenia, which commenced at the age of fifteen, have ceased for the last three months. You are prepared from these statements and from her emaciated appearance to find, and you do find, evidence of phthisis at the apices of one or both lungs, and you are further justified in concluding that here is a case of hereditary phthisis.

On the same, or on some other day, a cotton operative, of a similar age, is admitted, but with a widely different history. Her wages are small; her food has been scanty, generally consisting of bread and tea; her parents are both strong and well; her catamenia have only appeared once or twice; her cough, bothering her little at first, has latterly become much worse, and is attended with a somewhat profuse nummular expectoration. Shortness of breath, weakness, inability to work, and the other symptoms mentioned, point to chest complications, all the more telling when she says she had inflammation of the lungs twelve months ago, from which, however, she had recovered, and on examination you find a cavity, probably in the apex of one lung, and moist crepitation at the same spot on the other.

This, too, is a case of phthisis, but not of hereditary phthisis. It is phthisis consequent on her employment, hastened, it may be, by the inflammation she speaks of, and the unvarying unsubstantiality of her diet. My experience leads me to tell you, in forming a prognosis of two such cases, by no means uncommon, that the former under suitable treatment will recover, but that the latter will most probably go on from bad to worse, and terminate fatally within a few months of admission.

Let us speak of the first and more hopeful case, and detail the treatment adopted, the results of which you will perceive in the patient before you. Her history was very similar to that I have given you. For a week she was placed simply on the ordinary diet of the ward, in order that we might more fully measure her actual condition as evidenced by thermometric considerations. Repeated examinations showed us all that the mischief was confined to the apex of the right lung, and that a cavity actually existed there; while the left was, to all intents and purposes, playing its part well. The thermometer showed a temperature of 99° in the morning and 101° in the evening. It also indicated a variation in the side affected, the evening temperature there being greater by two decimal points in the morning and as much as four in the evening. She stated that she sweated much at night, and on the morning visit we found her hair about the forehead moist and the chest clammy. Her appetite was not improved.

Previous cases induced me to state pretty confidently that the hypophosphites would do her good, and accordingly she was ordered of the hypophosphite of lime as much as would lie on a sixpence thrice daily. I find it best to give the medicine thus, because, if kept in a stoppered bottle and only administered as occasion requires, deliquescence and consequent uselessness of the drug is prevented. This medicine was continued for six weeks, and the results noted at the end of that time were to a certain extent satisfactory. It was found that the night-sweats diminished, and the appetite was considerably improved; on the other hand, the temperature was increased, and on two occasions there was hæmoptysis half filling the ordinary ward vessel. One marked improvement was manifested, and that was an increase in weight.

On the 28th February the hypophosphite of lime was changed for soda. I do not consider it advisable to continue the former drug more than six weeks, especially if there is spitting of blood.

On the 23rd March the report states that the patient felt much better, that her appetite had improved, and that the sweating had disappeared. The thermometer also told us that the temperature was normal.

Without entering too minutely into technicalities, it was found that auscultation revealed abnormal sounds, but of a drier character, and consequently we were not surprised to learn that the expectoration had become nil. The girl was now ordered to take part in the ordinary scrubbing work of the ward, to go out daily, and to continue the hypophosphite of soda and glycerine. You were also told that very probably by such means, and by the evident facts mentioned, the phthisis had been arrested. This proved to be correct. The catamenia returned; and the girl left the house on the 21st April, to become a scrubber in the convalescent home at Lenzie.

She returned on the 22nd December last, eight months after admission. She stated that she was free from all cough and weakness, and was able to do her work well, until a month ago, when she had to take an active part in the extra cleaning that was going on in the "home." Since then her cough has returned, with a tenacious expectoration, hard, and difficult to be got up. Fearing a return of her last year's malady, she has come into the infirmary; and we find on auscultation rough tubular breathing at right apex, with a kind of click at the end of the expiration, as if the air-vesicle or air-vesicles collapsed when that was finished. At the left apex crepitation is also heard. There is also slight dulness in the supra-spinous region of both sides. Her tongue is clean. She has no night-sweats, and the temperature is normal. She has been unwell regularly since she left the house. I intend to allow her to remain under observation for the next two months, although I do not anticipate any aggravation of her disease. She has also been ordered again the hypophosphite of lime.

You will thus observe a very favourable issue in this girl's case, and the legitimate deduction is that it was due to the treatment adopted. The medicine imparted a something to the system of which it stood in need, and without which the disease would have gone on from bad to worse. You will also note what, in my opinion, always shows an arrest of phthisis—namely, the temperature becoming normal; no night-sweats; increase of weight; and, in females, a return of the catamenia. Unless these things ensue when treating consumptive female patients, you may depend upon it—no matter what the stethoscope or percussion may tell you, or rather how you may be deceived by what they reveal—that there is no amendment, but the reverse.

Now, compare this girl's case with that of M. M——, aged eighteen, a cotton-spinner, who was admitted in the summer holidays, and of whose case from the first a most unfavour-

able view was taken, for the reasons which I have indicated. She went to work and continued hard at it, first as a "half-timer" and next as a "young person," with no intermission except the few holidays of each year. Her father was killed by an accident when she was young, and her mother had to remove with her to one of those nasty low, badly-ventilated houses where so many of our poorer operatives are compelled to live. There is no family phthisical tendency. The mother seems a hard-worked yet healthy woman, and the girl herself, to all outward appearance, does not seem very ill. Yet on inquiry we find that her catamenia have only been seen thrice, the last time four months ago; that since then she had been troubled greatly with a cough, and that she has also spat up often a considerable quantity of blood; she also sweats much at night, her pulse is quick and feeble (120), and her temperature was 100·4° in the morning and 103° in the evening. These are all grave symptoms, and on percussion a dull cracked-pot sound was easily elicited below the right clavicle, where also gurgling and cavernous breathing were detected by the stethoscope. The left side at the apex was also involved, muco-crepitant râles being heard.

The same treatment was adopted as in the other case, but with no advantage. At first the night-sweats somewhat abated, but they returned and continued, while the temperature rose gradually to 101° in the morning, afterwards to 102°, and in the evening it sometimes reached 104°. The girl became weaker and weaker every day, although, even to the last, she could take food fairly and stimulants eagerly, to the extent of eight ounces of whisky daily.

These two cases, then, fully detailed, better illustrate the proposition with which I set out than any statistics, and from these your prognosis may often be formed of patients coming to the hospital. These cases, however, refer only to young females, although, *mutatis mutandis*, a similar history is recorded in males.

I find that since January last fifty cases of phthisis have been admitted into my wards, thirty-three being males and seventeen females. Of these five have died, three females and two males. I do not wish to twist statistics, nor would I ask you to depend much on them; still, as you will observe, the mortality is very small, and the treatment has been the same as that I have mentioned—viz., by the hypophosphite of lime or soda, and sometimes also by the hypophosphite of quinine given in three-grain doses. The quinine seems to have more effect in reducing the temperature, but it also appears to be not so well borne by the stomach; in many cases it induces vomiting and headache. In addition to the hypophosphites, alcohol in the form of whisky has been given freely. I can quite endorse the statements of Dr. Flint, of New York, with regard to its benefit, and to the remarkable tolerance of the drug in phthisis. In private practice I order it to be taken *ad libitum*. It soothes the cough without nauseating the stomach; and undoubtedly, whatever theory may say to the contrary, it affords permanent nourishment to the frame, and it never aggravates the fever. Brandy I have not found so advantageous; it appears to be too heating, and occasions heartburn and indigestion. Port wine and sherry also seem to have a similar effect. I have not had much experience with champagne.

Now you may ask—Do you never give cod-liver oil? Certainly, but not in hospital cases. The undoubted merits of cod-liver oil I would be the last to appear to decry. I regard it, however, simply as food; and if under its use ordinary food is not taken so readily, if the appetite becomes impaired, and the weight does not increase, then it does not fulfil what is demanded of it, and it had better be discarded. When, however, the patients leave the hospital, when they are able to be much in the open air and to take plenty of exercise, the oil seems more readily assimilated, and four or five tablespoonfuls daily can be taken easily—nay, eagerly. Its benefits are then apparent: the general health is improved, and the whole aspect of the patient evinces what Dr. Bennett so strongly insisted on—viz., that it imparts the greatest amount of nourishment in the smallest bulk.

All the hospital cases were ordered glycerine, and, if pure, two ounces daily were always given. The patients state that it soothes the cough and facilitates the expectoration. It is prescribed at no fixed intervals, the patients drinking it whenever they feel disposed, and this is generally when the cough is severe and the expectoration is hard and tenacious.

In addition to these means I always seek to have the patient out daily, unless there is much fog and moisture in the atmosphere. Undoubtedly Sydenham was right, though, of course, his dictum is exaggerated, when he states, "that quinine is not more a specific for ague than horseback exercise is for phthisis." The benefits of warm climates and of well-known specific health-resorts for phthisis simply consist in this, that out-door exercise can be indulged in there with greater impunity, and with less chance of in any way lowering the vitality. The same observation also applies, but with greater force, to a sea voyage. If the temperature becomes normal, if the disease is not too far advanced, if the patient is young, and circumstances admit of it, health, sometimes rude health, may be regained by a voyage extending over at least twelve months. This week two gentlemen, who have been under my care in private practice for some months, intend embarking, and hope to return about the same time next year. I have little doubt, judging from other cases of a similar nature, that they will have no reason to regret the step they have taken. It is culpable folly, however, no matter how anxiously they may wish it, to advise consumptives to leave the comforts of home, and the society of friends, as a *dernier ressort* when all other remedies have proved unavailing. If death ensues, as it generally does, bitter regret is cherished by friends, and much abuse is hurled against you for your want of judgment. Carefully, then, discriminate; take every opportunity while you are students, and free from responsibility, to become well acquainted with phthisis, as revealed to you by all the means now at your disposal, so that you may never prove yourselves blundering auscultators, or rash, and consequently ignorant, advisers.

THE VALUE OF THE ANTISEPTIC TREATMENT IN HERNIOTOMY.

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IT is now just ten years since Professor Lister made known to the profession his first experience of the antiseptic treatment of wounds and surgical cases in a series of papers in THE LANCET for 1867. He further raised a discussion on the subject, and made it more extensively appreciated by reading a paper giving the results in numerous surgical cases in the Surgical Section of the British Medical Association at the meeting which took place in Dublin in August of that year. The principles then enunciated have, as I believe, now become firmly established; and, although Professor Lister's method of practice has undergone many modifications, notably in the diminution of the strength of the carbolic acid applicable to recent wounds, it has gained year by year a wider acceptance from the profession, and it is now carried out by its distinguished originator and his numerous followers in a simpler and more effective manner, and is productive of better results, than it then was. As illustrating the value of antiseptic treatment in the radical cure of hernia, Professor Lister, in his address to the British Medical Association at Plymouth in 1871, alludes to a case of ventral hernia in a young woman, originating apparently in deep-seated abscess of the abdominal wall. He laid the sac freely open, so as to expose the adherent intestine and omentum which it contained, and separated the adhesions under the comparatively inconvenient antiseptic means then used, freely sponging with one in forty watery solution of carbolic acid, then pared the edges of the orifice by which the sac communicated with the abdomen, stitched the peritoneal edges securely with closely-applied sutures of prepared catgut, the ends being cut off near the reef knots. The outer wound was then stitched and treated antiseptically. The young woman left the hospital without any hernia.

He also mentioned a case of large umbilical hernia in a cook which he had treated in the same manner, and, al-

though the patient, owing to mental alienation, was up and walking about the ward within a week of the operation, she recovered.

In his Dublin paper Professor Lister gave the particulars of a very serious case of punctured wound of the thorax and abdomen, with protrusion of the omentum, which did well under the antiseptic treatment; but he has not, as far as I am aware, recorded any cases of strangulated hernia where the same method of practice has been employed by him with an equally good result. That he believes it is eminently applicable in herniotomy, and that he has used it in such cases, I have very little doubt. I know that in my own neighbourhood many surgeons of eminence have employed the antiseptic treatment in herniotomy with the greatest success.

Thinking that it may possibly encourage discussion of the question, and perhaps conduce to the adoption of the antiseptic dressing of the wound inflicted in herniotomy, I venture to bring forward my experience of the past four months. I might have given a greater number of cases, but I have simply taken from the Queen's Hospital ward-books the last five cases that have been under my care; and as they exemplify the practice in three of the chief varieties of hernia—viz., oblique inguinal, direct inguinal, and femoral—I trust they may prove of interest to the profession; and if their recital should lead to a further and more extensive application of the practice with which Professor Lister's name is identified, and for which I believe the surgical community is so greatly indebted to him, I shall be more than satisfied.

TABLE OF CASES OF HERNIOTOMY TREATED BY LISTER'S ANTISEPTIC METHOD AT THE QUEEN'S HOSPITAL, BIRMINGHAM, BY JAMES F. WEST, F.R.C.S.

Name.	Age.	Nature of Hernia.	Date of Operation.	Result and Remarks.
1. Geo. G. ...	45	Oblique inguinal.	April 10th, 1877.	Wound healed in seven days; no suppuration, elevation of pulse or of temperature.
2. Wm. B. ...	35	Oblique inguinal, with great effusion in scrotum, so that trocar was used prior to operation to diminish contents of sac, which punctured the intestine in two places.	May 14th, 1877.	Wound healed in eight days; no suppuration, elevation of pulse or of temperature.
3. Danl. N. ...	54	Oblique inguinal (right); had herniotomy performed by Mr. Paget at St. Bartholomew's on left side when nineteen years old.	June 4th, 1877.	Wound healed in seven days; no suppuration, elevation of pulse or of temperature.
4. Sarah B. ...	52	Femoral, chiefly omental.	May 11th, 1877.	Wound healed in eight days; no suppuration, elevation of pulse or of temperature.
5. Wm. B.[1] ...	21	Direct inguinal; strangulation of sixty hours' duration; small knuckle of intestine, very dark colour, and some omentum nearly black from congestion.	July 24th, 1877.	Wound healed in twelve days; no suppuration, elevation of pulse or of temperature. Patient had diarrhœa after operation, which was difficult to restrain, but he nevertheless did well.

[1] This case was transferred to me by my colleague, Mr. Gamgee, who knew I was interested in the antiseptic treatment of herniotomy.

The esteemed president of this (Surgical) section, Prof. Lund, has, in his teaching and practice, frequently and forcibly enunciated the value and importance of the antiseptic treatment (see his paper on "Antisepticity in Surgery," read at Plymouth in 1871, and also his "Observations on some of the more recent Methods of Treating Wounds," 1870); and I quite agree with him that there are three classes of cases in which antiseptic treatment is specially valuable—viz.: 1, in large abscesses; 2, in deligation of arteries; 3, in compound fractures; but I would go further than him, and make a fourth class—viz., in herniotomy, believing, as I do, that in that operation we have a condition where antiseptic treatment is of as much, if not more, importance than in any of the others. I think that the experience of those who, like myself, have given Lister's method a trial in that operation should, in all fairness, be placed on record, so that other surgeons may be induced to adopt it in similar cases; or if they, on the other hand, find it unsuccessful, that they may by all means publish an account of their failures. A wider and more lengthened experience of the antiseptic treatment enables me to endorse heartily the dictum of the late Professor Syme, "That this system of treating wounds and surgical cases is one of the most important improvements in surgical practice in modern times."

The points which Mr. Lund urges in favour of the antiseptic treatment are—

1. That the removal of secretions from wounds prevents inflammation and putrefaction.
2. That it is prophylactic, or essentially preservative, as shown by the absence of constitutional disorder.
3. That sloughing and ulceration are not likely to occur.
4. That exhaustion from vast secretion of pus is avoided.
5. That secondary hæmorrhage is less likely to occur.
6. That the cicatrix, under this treatment, is less firm, and therefore less liable to contract.

On all these points I heartily coincide with him. I would sum the matter up by saying that, by antiseptic treatment the mortality, after all surgical procedures, is greatly diminished, and the healthiness of hospitals and their immunity from pyæmia and other septic diseases vastly promoted. It is perhaps only fair to give a brief *résumé* of my general treatment of these and other cases of strangulated hernia. In all such cases which come under my care I first give an enema of castor oil and thin gruel, and then use taxis, after applying the ice bladder for an hour. I generally give chloroform, with a view of avoiding muscular spasm, while attempting to return the hernia. After that, if the taxis fails, I at once operate, before the patient recovers from the chloroform narcosis. I have a great horror of delay in these operations, and waste no time over palliative treatment. I give opium in grain doses every four hours for the first day after the operation, then every six hours for the next day, and afterwards twice or three times in the day, until the patient is free from pain and the bowels have acted. I apply bags of hot dry hops to the abdomen, and change them as often as they lose their heat. I avoid all aperient medicines, but if the bowels have not acted by the fourth or fifth day, or if there is much distension (tympanitic) of the abdomen, I give an enema of warm water, and repeat it if necessary.

These herniotomies have all been done under the warmed carbolic spray, one in forty, the steam spray, which is most convenient and efficacious, being the instrument employed. Drainage tubes have been introduced in every case, they being, in my opinion, essential to a good result. The tubes have been reduced in length from day to day, and generally removed entirely on the third or fourth day. A strip of protective has been placed over the entire length of the wound, and then two or three small pads of carbolic gauze which have been saturated with carbolic water, and over that the eight layers of gauze, with a sheet of protective between the seventh and eighth folds. The whole of the upper part of the thigh on which the hernia was situated,

and the abdomen, have then been surrounded by gauze bandages three or four inches in width. Silver sutures have been employed, their removal being effected on the second or third day.

The house-surgeons, Messrs. Wilkins and Bradford, whose care in attending to these operations has been unremitting, have dressed the wounds within twenty-four hours if there was the least sign of discolouration at the edge of the dressing, but if there was none the dressing has been done once daily for the first few days, and then every other day. By the seventh or eighth day all discharge has ceased and the wounds have healed. Dry lint has then been applied, and a good-fitting truss having in each case been obtained, the patients have been enabled to leave the hospital within a fortnight of the period of their admission.

The absence of suppuration, the freedom from elevation of pulse or temperature, and the good condition and healthy appearance of the operation wound have, in all cases, been remarkable.

In conclusion, I would call special attention to Cases 2 and 5. In Case 2 the herniotomy was complicated with a punctured wound of the intestine. In that case there was vast effusion into the hernial sac, so that the scrotum was as large as a child's head. Thinking that if the fluid were removed by an aspirating trocar I might be able to reduce the hernia without operation, I made a puncture and removed a considerable quantity of fluid; but finding myself still unable to return the intestine, I laid open the sac in the usual manner, and, on exposing the contents, found that the small trocar which I had used had punctured and penetrated the intestine in two different places. In spite of this unfortunate *contretemps*, the man, owing, as I believe, to the antiseptic treatment, had no inflammatory symptoms, and returned to his duties as a bargeman within ten days. Again, in Case 5, where strangulation had existed for sixty hours, the hernia being of the direct inguinal variety, and, therefore, the constriction of the protruded intestine and omentum being the more intense, one could hardly have expected so good a result. In that patient the intestine was of a dark-purple colour, and the omentum nearly black, and there was also the complication of severe diarrhœa after the operation, accompanied by great pain and tenesmus, the fruits of the long strangulation. To keep the antiseptic dressings and bandages *in situ* in such a case was an undertaking of the greatest difficulty; it was, however, managed, the patient made a good recovery, and the wound healed without the occurrence of any suppuration.

Birmingham.

REMARKS ON

ARTERIO-CAPILLARY FIBROSIS AND ITS CLINICAL RECOGNITION.[1]

BY F. A. MAHOMED, M.D.,

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IT is a matter for regret that the discussion on the important question of arterio-capillary fibrosis that has been brought before the Society in so exhaustive a manner, as far as concerns its pathology, by Sir William Gull and Dr. Sutton should be limited so entirely to the consideration of the comparatively trifling question of whether the undoubted thickening of the arteries seen in these cases be due to muscular hypertrophy or fibro-hyaline change. Both probably are present. If any other question has been raised, it is of almost equal insignificance—namely, whether the also undoubted increase of fibrous tissue and decrease of gland tubes in the contracted kidney be due to compressed, shrivelled, and atrophied tubules, or to a new growth of intertubular fibroid tissue. For my own part I believe it to be due to the latter cause, and I think I have seen it in every stage, from a highly nucleated intertubular exudation in acute disease, passing through every phase of organisation till it reaches the dense, old, and sparsely nucleated fibroid tissue seen in the typically small contracted kidney.

But the question raised by Sir William Gull and Dr. Sutton seems to me of a much larger nature: it is whether or not there is a great and general "fibroid degeneration" occurring in many persons after, or even before, middle life, and which they call "arterio-capillary fibrosis." This question is by no means a new one; it was long ago raised by Sir William Jenner and by Dr. Handfield Jones in their papers in the Transactions of the Royal Medico-Chirurgical Society and in the *Medico-Chirurgical Quarterly Review* respectively. Those papers raise the great question whether there is not such a disease as a general fibroid degeneration which may be classed with other general degenerations, such as the fatty and the amyloid; I think, moreover, they prove it to exist, and arterio-capillary fibrosis appears to be nothing else. The fact that this disease does exist as a great pathological entity has almost been lost sight of, and yet I think most pathologists would recognise the fact that such cases often occur, and their pathology is well known in detail, although not always recognised as a whole.

Cases are familiar enough to me which I should call, following the teaching of Dr. Handfield Jones, cases of "fibroid degeneration," in which one finds a general increase of fibroid tissue in all the organs. They have firm brains and spinal cords, with thickened and opaque arachnoids, and much subarachnoid fluid; ossified cartilages; tough and fibrous lungs, with prominent bronchi; more or less cirrhosed livers, or rather livers with an excess of fibrous tissue; contracted and firm spleens; more or less granular kidneys, with adherent capsules; the mucous membrane of the alimentary canal presenting the usual appearances of chronic gastro-intestinal catarrh; the heart has commonly a hypertrophied left and dilated right ventricles, with thickened valves, containing some white fibroid or atheromatous patches; a more or less atheromatous aorta and larger vessels, and thickened smaller ones: shortly, in fact, an increase of the fibroid tissue throughout their bodies. Such, roughly, are the macroscopic appearances of "fibroid degeneration," and such, I take it, are those of arterio-capillary fibrosis.

The modes of death in these cases are various. They may simply die of exhaustion, or "general decay," no especial symptoms predominating; in others the kidney symptoms will be more marked, and they may be classed as chronic or acute Bright's disease, and die from any of the ordinary complications of this disorder; in some, the lungs may suffer most, and bronchitis or pneumonia terminate life; occasionally the symptoms arising from the liver may be aggravated, and death may appear due to cirrhosis. Apoplexy, aneurism, and symptoms of heart disease are the necessary results of these cardio-vascular changes, and are frequently the immediate causes of death; any fever or acute disease puts them in imminent peril. Such cases may be found therefore scattered throughout the post-mortem records under various headings, according to the complication under which they finally succumbed; but this general condition of "fibroid degeneration" was the ultimate, though not the proximate, cause of death.

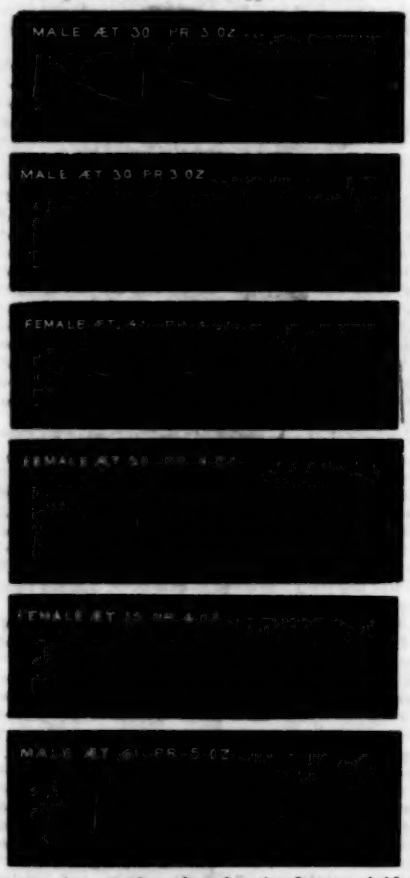
Sir William Gull and Dr. Sutton have stated in their paper that, though they have now studied fully its pathological results, they cannot with certainty recognise its clinical indications. Although in the presence of this statement it would appear absurd and presumptuous were I to pretend to do so, still I cannot but think that the sphygmograph has afforded the key to its recognition. It is very common to meet with people, apparently in good health, who have no albumen in their urine or any other sign of organic disease, but who constantly present a condition of high arterial tension when examined by aid of the sphygmograph. I pointed out the common occurrence of this condition in a paper on the "Etiology of Bright's Disease" published in the Transactions of the Royal Medical and Chirurgical Society for 1874, and I suggested that they were the subjects of arterio-capillary fibrosis. The tracings in Fig. 1 are examples of this condition; they were all obtained from people in apparent health, but whose pulses constantly exhibited this character, and it was almost the only symptom of their very important pathological condition. Such people, however, are very commonly subjects of a gouty diathesis, dyspeptics, suffer from functional derangements of the liver, indulge too freely in alcohol, or have, from one cause or

[1] Made during the discussion on Sir William Gull's and Dr. Sutton's paper at the Pathological Society of London.

another, tainted or impure blood. It does not require the sphygmograph to recognise this most important character of the pulse. Among the characteristics it presents to the finger that of "persistence" is the most important—namely, the ability to feel the artery constantly distended during both the systolic and diastolic period; it is always present

FIG. 1.

High arterial tension in apparent health.



as a more or less rigid cord under the finger—rigid, however, not from thickening or disease of its coats so much as from its constant hyperdistension. Now the pathological results of this condition of high arterial tension are most important and most evident. Given that a certain thickness of vessel is required to withstand the distending power of a normal amount of arterial pressure, it must necessarily follow, if that arterial pressure be very greatly increased, that the vessels must be correspondingly thickened to prevent their overdistension. So with the heart, which must also become hypertrophied to overcome the increased arterial resistance. Thus do we see the cause and the necessary production of the characteristic cardio-vascular changes in arterio-capillary fibrosis. Should this condition of hyperdistension extend to, and originate in, the capillaries, as I believe it does, it should produce the changes invariably subsequent to chronic congestions—namely, increase of fibroid tissue. There is good reason to think, therefore, that a constant condition of high arterial tension must of necessity produce an arterio-capillary fibrosis.

It may be suggested that the anatomical changes first occur, and that the increased arterial tension is merely a result, and not a cause; but I have demonstrated, in the paper previously referred to, that this increase of arterial tension may be a very temporary condition, or may exist for any length of time or throughout life. It is found after scarlatina previous to and during albuminuria, when it may last for only a few days or even a few hours; it occurs more gradually and for a longer period in pregnancy; it may be produced by nervous causes, such as troubles and anxieties, and pass away with them; or it may occur still more insidiously, and last till death, in chronic Bright's disease.

The causes of high arterial tension may be temporary or permanent. They are usually some form or other of blood-poisoning—namely, gout, lead, alcohol, pregnancy, constipation, scarlatina, and certain forms of dyspepsia, malassimilation, and functional disorders of the liver; to these blood conditions certain mental causes may be added. Though generally present in both acute and chronic Bright's disease, the increased arterial tension does not appear to be due to the kidney disease itself, but rather to the preceding blood condition which gave rise to it. Proof of this is seen in the fact that during the recovery from acute Bright's disease, while the urine is still highly albuminous and full of granular and fatty casts, so that the kidney is manifestly crippled and unable properly to discharge its functions, the tension often disappears from the pulse, as seen in Fig. 2, which represents

FIG. 2.

Acute Bright's disease with albuminuria; recovering with low tension.

the pulse-tracing of a man, aged twenty-nine, recovering from acute Bright's disease with low tension, the tension having previously been high. This is a most important point in prognosis: it indicates that the blood condition which caused the disease has passed off, and the patient will probably make a complete recovery; while those cases in which the tension remains high, while the dropsy and albuminuria disappear, will probably pass on to chronic Bright's disease and contracted kidney, the blood-poison being of a chronic nature or due to a constitutional condition.

Again, patients suffering from chronic Bright's disease do not invariably present high arterial tension during life, or a hypertrophied heart after death. Fig. 3 represents

FIG. 3.

Contracted kidneys, without *hypertrophy of heart, thickening of arteries, or high tension.*

the pulse of a man, aged thirty-five, who illustrated this. He was a patient under the care of Dr. Sutton, and died the year following to that in which this tracing was obtained. He had suffered from chronic Bright's disease for ten years, and his kidneys weighed only three ounces; still his pulse-tracing shows but slight arterial tension, and his heart was not found hypertrophied after death, nor his vessels thickened. This was probably a true cirrhosis of the kidney, without an antecedent blood condition.

Some cases have been referred to by Dr. Gowers in which, after destruction of one kidney by disease, the arterial tension has been increased and the heart hypertrophied; but most probably this increased arterial tension existed before the destruction of the kidney, being possibly due to a gouty diathesis, which had also caused the formation of a calculus in the kidney, giving rise to its subsequent suppuration and destruction.

From the foregoing remarks, I think the following propositions may be deduced:—

1. Certain temporary or permanent blood-poisons will produce temporary or permanent increase of arterial tension.

2. Persistent increase of arterial tension will necessarily produce the cardio-vascular changes seen in arterio-capillary fibrosis.

3. Blood-poisons, giving rise to increased arterial tension, are commonly, but not invariably, the causes of acute and chronic Bright's disease.

4. High tension may exist without kidney disease, though rarely.

5. Kidney disease may exist without high tension, but also rarely.

6. That high tension is the result of an antecedent blood condition, and not of the subsequent kidney disease.

Finally, without entering into the discussion of the theory of "stop-cock action" of the muscular coat of the arterioles, I would point out the importance of the observation by Sir William Gull and Dr. Sutton of what they describe as a hyaline exudation from the walls of the *capillaries*, causing thickening of them and in-growths of fibroid material into the surrounding tissues. Taking into consideration the existence of high arterial tension preceding and causing the changes in the vessels, it appears that these changes around and in the capillaries are the results of high pressure in the capillaries themselves. They are the results of chronic capillary congestion, while dropsy and albuminuria are the results of acute capillary congestion. Surely these could hardly occur if the stop-cock action really existed, for this would necessarily protect the capillaries from the results of high tension, which would not reach them. These observations appear to me somewhat antagonistic to Dr. Johnson's theory.

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ON THE USE OF THE ASPIRATOR IN HEPATIC ABSCESS.

BY E. H. CONDON, M.D.,
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THE following cases illustrate to some extent the advantages and difficulties attending the use of the aspirator in cases of abscess of the liver, and demonstrate the perfect safety with which the liver may be explored. The mortality, in proportion to the number of cases treated, among the British troops in India is so great, and the disease is in itself so dreadful, that any rational mode of treatment which promises even a certain measure of success ought to be fully tested by those who have the opportunity of doing so, and the medical officer who undertakes this must be prepared to meet large calls on his time and patience at the bedside.

It may be noted that four out of the five cases which ended fatally were in a dying state when received by me under treatment; and the operation was only resorted to as a *dernier ressort*, and with the satisfactory results of relieving suffering and prolonging life. In some of the cases no abscess was found, and in one case the existence of any liver disease was highly problematical; but the cases are instructive, as they tend to show that the liver, diseased or otherwise, may be explored with impunity. The cases are abridged a good deal, and only that aspect of each case which has a bearing on the use of the aspirator is given.

CASE 1.—Gunner Robert C——, R.A., aged twenty-four years; two years' service. Arrived at Madras from Rangoon, by the steamer *Oriental*, on the 23rd October, 1873. From the detailed medical history received with him, it appeared that he had been in Rangoon about a year and a half; always looked anæmic, but enjoyed fairly good health until Sept. 16th, 1873, when he was admitted into hospital suffering from an ordinary attack of "acute hepatitis"; pain and enlargement of liver were considerable. The symptoms were relieved by treatment, which consisted in the local application of leeches, hot fomentations, mustard, belladonna, &c., and the internal administration of chloride of ammonium, morphia, and laxatives; "but," it is added, "the disease cannot be said to have yielded to treatment," and hence he was sent to Madras for change of air.

On admission into the General Hospital, Madras, he was in a very prostrate state; his face bore a peculiar sallow, muddy appearance, with an anxious expression of countenance; conjunctiva not jaundiced; skin covered with a cold, clammy sweat; tongue coated; bowels loose; pulse quick and weak; respiration rapid; right side much enlarged and extremely tender, so much so that the most gentle palpation caused agony, and percussion was altogether out of the question. He was given stimulants, concentrated beef-tea, &c., ammonia, and anodynes, and his side was covered with spongio-piline wrung out of hot water. Abscess of the liver was diagnosed, and it was determined to tap it, if he rallied sufficiently to admit of its being done.

On the 4th November he had so far improved under the palliative treatment adopted as to admit of his liver being explored, with a view to evacuating the abscess. The whole of the right hypochondrium was much enlarged, and the pain and tenderness were so general that no clue could be got to the exact position of the abscess. The finest needle of Dieulafoy's aspirator was introduced just below the spot where the tenth rib joins its cartilage, to the depth of about three and a half inches; but no matter was found, and there was no sign of blood on the needle when it was withdrawn. He had a very great objection to the operation, but it was nevertheless thought advisable to give him the slender chance of life which the operation afforded if the abscess could be found. In the evening he said that he felt almost immediate relief from the operation; pain and tenderness of side almost quite gone; he allowed his side to be percussed without evincing much uneasiness; passed a comparatively comfortable day, and took his nourishment with a relish which he had not done since admission.

On Nov. 5th it was noted of him: "Passed a good night. Complains of no pain in his side, and looks wonderfully improved. Percussion causes no pain; and dulness is now found to extend over the whole right side from a level with the right nipple above to the umbilicus below." After a careful examination of his side, the same needle was again inserted between the eighth and ninth ribs, a little to the right of the straight line below the right nipple. The abscess was not found, and the needle came out dry; not even a drop of blood was sucked into it by the aspirator.

Nov. 6th.—Says he feels decidedly better this morning. Side free from pain, bulging less, and area of dulness on percussion diminished; takes nourishment well.

He improved steadily until the 11th, when there was a rather sudden accession of pain in his side, hurried breathing, loose stools, and an anxious expression of countenance. He was so much opposed to the use of the aspirator, and as the position of the abscess could not be ascertained, it was determined not to use it again, but to poultice the side and look for pointing of the abscess. Cough and diarrhœa supervened, and he expectorated small quantities of pus, which he said had a "rotten taste;" the abdomen became tympanitic, the feet swelled, and he gradually sank and died on the 28th November.

Autopsy, eight hours after death.—Body emaciated; rigor mortis present; œdema of hands and feet; no marks of syphilis. Encephalon healthy. A small quantity of fluid in pleura. The right lung weighed thirty-five ounces; it was congested posteriorly, and infiltrated throughout with puriform serum; the most dependent part of inferior lobe was inflamed and ulcerated, and communicated with an abscess in the liver by an ulcerated opening in the diaphragm, to which it was adherent. The left lung weighed thirty-three and a half ounces, and was œdematous and congested posteriorly. Pericardium healthy. The heart weighed thirteen ounces, and was healthy. There were two pints of serum in the cavity of the peritoneum; œmentum dark-coloured and free from fat. The liver weighed sixty-six ounces, exclusive of the contents of the abscess. The abscess, about the size of a large orange, and full of brownish pus, was found on the convex surface of the right lobe; the pus had burrowed upward into the right lung, and downward to the angle of the the colon and right kidney; the abscess was also adherent to the cæcum, and communicated with it by small wormeaten-like openings. The abscess was limited on its hepatic aspect by a membrane as thick and as tough as leather, and the liver, to the extent of a quarter of an inch around, was stained a deep blue colour; the abscess contained about a pint of fetid pus. Other parts of the liver appeared healthy.

Remarks.—The immediate relief which followed the punctures in the above case was very remarkable, and, if the abscess had been discovered and evacuated, he would probably have made a good recovery. At the second puncture, the needle entered the liver about a quarter of an inch from the abscess, and it left no cicatrix or mark.

The abscess had probably existed for a considerable time before he came under treatment for it, as the thickness of the limiting membrane would go to prove, and the attack of "acute hepatitis" was probably secondary to the abscess and caused by the pus commencing to burrow beyond its primary confines.

CASE 2.—Driver Jeremiah C——, R.A., aged thirty-five; service fifteen years. This man was passing through Madras with his battery *en route* from a station up country to Rangoon. He was transferred from the Royal Artillery camp on the beach to the General Hospital, Madras, on the 2nd of June, 1874. There was no medical history sent with him, but he stated that he had been ill for a few days. The symptoms on admission were those of an ordinary attack of "hepatitis"—viz., quick pulse, hot skin, foul tongue, loss of appetite, severe pain in the right side, and some enlargement and tenderness of the liver. He was treated on the chloride of ammonium plan, with "Dover's powder," &c., and fomentations &c. to the side. The acute symptoms passed off in about three weeks, but severe pain and some bulging of the side remained. His appetite was bad, and his general health much impaired. Counter-irritation, in the form of a large blister, was applied to the side on the 23rd January. It was kept open for a week without his deriving benefit from it, and then healed up. He remained in much the same state until the 5th of February, when the fine needle of Dieulafoy's aspirator was inserted in the painful spot, but no abscess was found, and the needle came out perfectly dry. The pain was relieved almost immediately after the operation, the bulging gradually disappeared, his appetite and strength returned, and he was discharged on the 24th February to rejoin his battery.

Remarks.—This was an ordinary case of acute "hepatitis," and, although it was thought that a small abscess might possibly have formed, yet he was punctured more with a view to relieve the local symptoms (the marvellous relief which followed the operation in case No. 1 being fresh in my mind), and the result was very gratifying.

CASE 3.—Gunner Albert B——, R.A., aged twenty-seven years; service ten years. The following is the first record of this case:—"January 26th, 1874. Admitted into hospital on the 18th instant, suffering from a severe attack of acute hepatitis. He was transferred to my care two or three days ago. Present condition: He can only lie on his back a little over to the right side; cannot take a long breath; tongue coated; bowels tolerably regular; skin sometimes hot and dry, but at times he suffers from sweats and chills. On examining his right side his liver is found enormously enlarged, reaching down to the umbilicus, and extending across under the left costal cartilages, he complaining of great pain and tenderness over the liver. Pulse 98; respiration 36; temperature 102° F. The chloride of ammonium treatment was adopted, with Dover's powder, hyoscyamus, &c., and fomentations &c. to side; concentrated fluid nourishment was given, and he was placed on an air-bed."

Feb. 2nd.—His symptoms continued unrelieved. Since date of last report temperature ranged between 99° and 103°, his respiration between 28 and 36, and his pulse between 80 and 85. He was frequently seen in consultation with Surgeon-major Lougheed, and tapping was put off from day to day in hope that the abscess would point, or that some sign would arise to indicate its position. This morning he was evidently sinking (pulse 40, respiration 32, temperature 97°), but as it was thought that even now it might give him a chance of life to evacuate the abscess, the largest needle of Dieulafoy's aspirator was inserted between the seventh and eighth ribs in a line below the right nipple, and half an ounce of pus drawn off, when the needle became plugged by a shred and had to be withdrawn. A fine trocar was then inserted about an inch farther back, and about two ounces of pus drawn off, when the cannula became choked again with a shred and had to be withdrawn, and as he was very weak it was resolved not to proceed further. He gradually grew weaker, and died four hours after the operation.

Autopsy, five hours and a half after death.—Body well nourished; rigor mortis present. The right pleura contained two ounces of serum; lower part of right lung highly congested and attached to the diaphragm. The liver was enormously enlarged, and weighed, exclusive of pus, 7 lb. 14 oz.; the right lobe was intensely congested throughout, and presented a marked contrast to the left, which was of a pale colour. The right lobe contained a large abscess in its upper part, which was adherent to the diaphragm. There was no limiting membrane, but the walls of the abscess were ragged and shreddy, and easily broken down. The abscess burst when taking out the liver; the quantity of pus contained in it was estimated at about a pint.

Remarks.—This case of suppurative hepatitis ran an unusually rapid course. The state that the right lobe of the liver was found in at the post-mortem examination rendered it doubtful whether it would have saved the man's life to have tapped the abscess as soon as it had formed; but there is no doubt that it would have been better to have tapped the abscess as soon as its formation was indicated by rigors &c., than to have allowed it to remain until he was moribund, and the operation only resorted to when it was really too late.

CASE 4.—Private D. M'L——, 1st Batt. 21st Fusiliers, aged twenty-two years; three and a half years' service. This man was under treatment in the General Hospital for dysentery from Dec. 7th, 1873, to Jan. 8th, 1874, when he was discharged to duty. He was reported sick again on the 24th of the same month, complaining of pain in the region of the liver. On examination, the right lobe of the liver was found enlarged; there was not much tenderness, but he complained of constant pain about the centre of the lobe. He was treated on the chloride of ammonium plan, and various local applications were used. This treatment was persevered in, without benefit, until the 5th of February, when his liver was freely explored with the fine needle of the aspirator, but no abscess was discovered. Immediate and complete relief of the local symptoms followed the operation, and he made a good recovery. He was seized with epilepsy a short time afterwards, for which he was invalided to England.

Remarks.—The hepatic symptoms occurring soon after a severe attack of dysentery led to the suspicion of a metastatic abscess in the liver. The relief which followed the use of the needle was very striking, and he had no return of the symptoms prior to embarkation for England. The attack of epilepsy was not thought to have any connexion with the liver complaint or dysentery.

(To be continued.)

CASES OF OSTEOTOMY FOR RACHITIC DEFORMITY OF THE LEGS.

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As Mr. Bradley, in a clinical lecture published in THE LANCET of July 21st, referred to some cases of division of the tibia which have been under my care, I take an early opportunity of giving a detailed history of them.

The method of operating being almost identical in each case, a description of one will suffice.

A longitudinal incision, about three-quarters of an inch long and down to the periosteum, was made at the point of greatest concavity. The periosteum was then divided transversely to the superficial wound. The bone was sawn about three parts through; the remaining bridge of bone was forcibly fractured; the limb straightened, and placed on a back-splint. The edges of the wound were approximated by wire sutures. Side splints were applied after some days.

The fibula will, in most cases, give sufficiently to admit of the position being properly corrected, but it may be found necessary to break it by manual force.

Of the eight operations, seven were dressed strictly according to Lister's method; and in all the cases Esmarch's bandage was applied to the limb before the operation.

For the notes of the cases I am indebted to Mr. Hughes, late resident medical officer to the Children's Hospital.

CASE 1.—Henry D——, aged two years, admitted into the Children's Hospital Dec. 14th, 1875. The patient was well until nine months old, when his legs began to bend outwards. One month before admission he had a feverish attack, from which he recovered perfectly, but his legs had become more bent since.

On admission, patient was a well-nourished boy. Both legs, from the middle downwards, were very much curved forwards and outwards. The ribs and wrists were well shaped, as was also the head.

A splint was applied to the right leg in order to straighten the bone; it was, however, discontinued in consequence of a pressure sore.

Jan. 26th, 1876.—Osteotomy of the left tibia was performed. This was not done antiseptically.

The wound suppurated, and subsequently two small pieces of bone, evidently from the divided margins, were removed.

It is very possible that the exfoliation of bone may have been due to the crucial incision which, in this case, was made in the periosteum before the application of the saw. Three months after operation the wound was cicatrised and the bone firmly united.

On the 2nd February the right tibia was divided. The wound healed without suppuration, and in three weeks the bone was sufficiently firm to allow the limb to be put up in gum-and-chalk bandage.

May 30th.—Patient was discharged, with the legs quite straight and well able to walk.

CASE 2.—Mary S——, aged six years, admitted into the Children's Hospital March 1st, 1876. She had had crooked legs since her first attempt to walk. During the last three months her gait had become more clumsy, and when admitted she walked with great difficulty. Her general health was said to be always good.

On admission, patient was a well-nourished girl. Both legs were curved outwards and forwards in an extreme degree; the extremities of the tibiæ were somewhat expanded. The head was of good shape. The chest was narrow, and the ends of the ribs were beaded. The arms were straight, but the lower end of each radius was expanded. In walking, the knees were separated, and her gait was very awkward.

March 8th.—Subcutaneous osteotomy of right tibia. The fibula was broken in straightening the leg.

10th.—Sutures (three) removed. Wound healed superficially.

11th.—Left tibia operated upon in the same manner as the right.

13th.—Sutures removed; edges of wound united. Side splints applied to both legs.

25th.—Both tibiæ united in straight position. Legs placed in a gum-and-chalk apparatus.

April 1st.—Patient can walk without difficulty.

11th.—Discharged, cured.

In May this patient was seen. The legs were firm and straight; and there was hardly any rolling in her gait.

CASE 3.—Richard O——, aged three years, admitted into the Children's Hospital August 8th, 1876. He has always been a delicate child, and has suffered from several attacks of diarrhœa. The legs have been crooked since he first attempted to walk.

On admission, patient was an ill-nourished child. The legs were curved outwards and the thighs forwards; the ligaments of the knee-joints were much relaxed, so that considerable lateral movement of the bones was permitted, and the gait was in consequence rendered more awkward. The cranium was well shaped, and the fontanelles were closed. The ribs were slightly beaded; the arms straight.

Sept. 9th.—Subcutaneous osteotomy of both tibiæ; the legs made straight, and secured to a back splint.

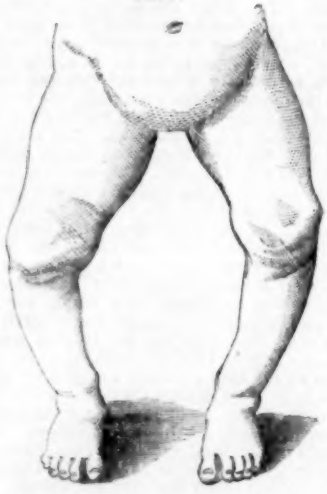
The wound healed without any suppuration, and by the first week in October the bones were firmly united. The legs were then placed in gum-and-chalk splints.

The lax condition of the ligaments of the knees gave rise to some difficulty in walking after the limbs were straightened, and at the time of his discharge the boy's gait still retained the rolling character. When, however, he was seen on the 20th February, 1877, he had entirely lost the peculiarity in his walk. His legs remained in a straight position.

CASE 4.—Jas. D——, aged two years and a half, was admitted into the Children's Hospital, May 2nd, 1876. Patient has always been delicate. For the first eighteen months of his life he suffered from diarrhœa, and still has occasional attacks. When fifteen months old had convulsions, chiefly affecting the left arm and leg; these limbs have always seemed weaker than those on the right side. The legs were never straight, but their bent condition has increased during the last six months.

On admission, the patient was a moderately well-nourished boy; the tibiæ were bowed outwards very considerably, and their extremities were somewhat expanded; the thighs were curved forwards; the head was well-shaped, and the fontanelles were closed; the chest presented no appearance of rickets, nor was there any evidence of such affection in the upper extremities.

No. 1.



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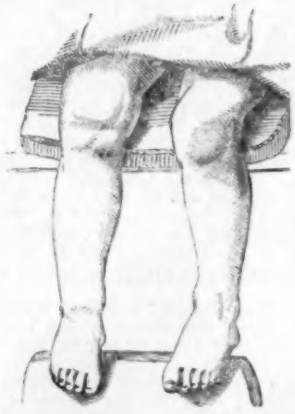

May 13th.—Both tibiæ were divided; the fibulæ were broken in bringing the legs into the straight position.

14th.—Dressings renewed; there is some tension on the edges of the wound in the right leg; the sutures were therefore removed.

15th.—Removal of sutures in the left leg.

16th.—The wound in the left leg has healed in its entire extent; a slight discharge of clear serum from that in the right leg.

18th.—Slight suppuration from wound in right leg.

19th.—Side splints applied to both legs, as there was a tendency to outward bowing.

June 2nd.—The left leg, being firmly united, was put up

in a gum-and-chalk bandage. The wound in the right leg continues to discharge a small quantity of pus, and bare bone can now be detected at the bottom of the wound. A gum-and-chalk bandage applied, leaving an opening opposite the wound.

14th.—A small sequestrum, consisting of the divided edge of the tibia, removed.

24th.—A similar piece of bone taken away; after this the wound rapidly cicatrised.

July 12th.—Both tibiæ are now firmly united in a straight position, but, owing to relaxation of the ligaments on the inner side of the knees, the patient's walk is still clumsy. By keeping the joints fixed in straight splints this defect was remedied, and ultimately he walked without the straddling which at one time was so very marked.

Photograph No. 1 shows the condition of the boy's legs before the operation. Photograph No. 2 was taken last February, and shows his present state.

These four cases, the histories of which I have related, present us with a series of eight operations. In six the skin wound healed by the first intention, and the bones united very readily; in the remaining two healing was delayed by exfoliation of the sawed surfaces. The tibia in each case was divided with a fine saw. An objection has been raised by some to this mode of division; the bone débris which results from the use of the saw is said to retard the healing of the parts. This, as far as I have seen, is purely hypothetical.

The following conclusions seem to me to be established by the foregoing cases.

1st. Rickety deformity of the legs can be successfully treated by an operation when all other methods have proved unavailing. It ought to be mentioned that all these cases had been under treatment at the Children's Dispensary prior to their admission into the hospital.

2nd. The risks of the procedure recommended are reduced to a minimum if the operation be performed with antiseptic precautions.

Two questions present themselves and require to be answered:—1st. At what stage ought we to have recourse to the division of the tibiæ in rachitic distortion of the legs? 2nd. What amount of deformity will justify the operation? It is easier to give an answer to the first than the second. I consider that we are justified in proceeding to operate when the rickety process has subsided, and when all reasonable attempts to remedy the deformity by constitutional remedies and mechanical appliances have completely failed. The amount of deformity justifying the operation must be left largely for individual judgment to decide. I am inclined at present to advise operation only in cases of major deformity, but as our confidence in this method of treatment increases by experience it is quite possible that we may extend the operation to minor cases.

Manchester.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

A CASE OF SYPHILITIC PARAPLEGIA; APPEARANCE OF AN OBSTINATE ULCERATING SYPHILODERM UNDER IODIDE TREATMENT; RECOVERY UNDER THE INFLUENCE OF MERCURY.

(Under the care of Dr. BUZZARD.)

THE patient whose history follows was recently discharged completely recovered. The case involved some very interesting points, both as regards diagnosis and treatment.

H. G——, aged fifty-four, was brought to the hospital on October 28th, 1874, suffering from paraplegia. He could not stand, and was unable to sit upright upon the chair in which he was wheeled into the hospital. There was great loss of sensibility to touch in both lower extremities, and a feeling of "dead numbness" in them. For about a month previously he had endured great discomfort from a feeling as though there were an iron binding about five inches wide around the lower part of his belly and hips. Aching pains in the legs, and a drawing up of them against his will, were also complained of. The bladder was unaffected, and although there was constipation, the rectum did not appear to be paralysed. His face presented a peculiar muddy pallor, and on the left temple was a very small spot of psoriasis.

It appeared from the man's account that his symptoms had begun in the preceding April, after getting chilled one night; that he grew gradually worse until August, when the paraplegia was complete, and that he had remained ever since in the same state, without making any improvement whatever under the treatment which had been adopted. He was married, the father of eleven living children, and of one who had died; his wife had twice miscarried. He had never suffered from sore-throat, and any probability of his having been ever infected with syphilis was strongly denied. He had received no injury to his back. The various organs of the body were healthy. He was ordered iodide of potassium in ten-grain doses, afterwards increased to twenty grains three times daily.

Improvement commenced at once. In January he could stand a little with support; in April he walked into the consulting-room with a crutch and stick. He complained of a "heavy pain" but no tightness in the lower part of the abdomen, and a feeling of coldness and numbness in the legs. He thought that he had now come to a standstill. On the back of the right hand, near the root of the thumb, he now showed a sore, which had quite recently appeared, and which presented the aspect of an ulcerating tubercular syphiloderm. It was deep, ragged, with dark red granulations, discharging ichor, and the skin for some distance at its margin was covered with a more superficial ulceration, which was rapidly spreading. Under the application of black-wash this continued to spread, until more than half the back of the hand was involved in the ulcerative process, which was for the most part superficial, but here and there occasioned perforations. In June the patient was admitted as an in-patient, and simple non-mercurial applications substituted, the iodide of potassium in twenty-grain doses being continued. For a time there seemed to be improvement, but in January, 1876, the hand appeared worse than ever. He was now ordered one-twelfth of a grain of the red iodide of mercury twice a day, and ammoniated mercury ointment to the hand. After a month the bowels became irritated by the iodide of mercury, and first quinine and then iodide of potash was substituted, the local mercurial application being continued. In June he showed a fungoid swelling of the gum in his left upper jaw, and about the same time a hard swelling the size of a small nut could be felt near the lower angle of the right scapula. The skin over this ulcerated, and the sore discharged a little fluid, but showed no tendency to heal. In July, 1876, he was practically well as regards the paraplegia, but the hand was as bad as ever, and the sore on the back just described persisted. He was now put upon three grains of mercury with chalk, at first twice, and, later, as the gums showed a disposition to be tender, once a day. This treatment, with occasional suspensions, was continued through the winter, and under it the hand and the ulcer of the scapula completely healed. In June it was discontinued, and some iron given for a month, when the patient was discharged well. He could then walk ten miles at a stretch, and the hand presented only a red stain.

In this case Dr. Buzzard thinks there was an inflammatory thickening of membranes of the cord in its dorsal portion, evidenced by the involuntary movements and pains in the legs and the sense of constriction around the belly. The improvement which immediately commenced under the use of iodide made it probable that the affection was of syphilitic origin, in spite of the patient's denial and the absence of confirmatory signs. Under the influence of the iodide, whilst he got cured of his paraplegia, unmistakable signs of syphilis developed themselves in the form of a spreading ulceration of the hand and a most characteristic gumma of the skin over the scapula. Dr. Buzzard has observed several times a similar development of syphilitic

sores in the skin and mucous membranes of patients taking iodide or mercury—a curious circumstance, for which he does not offer an explanation. In this case, the appearances presented themselves very *à propos*, as, without them, the specific character of the cord lesion occasioning paraplegia might have been considered improved. The failure of the iodide of mercury and of mercurial applications to influence the sores, which recovered somewhat rapidly when the gums were slighted touched by the use of grey powder, is worth noting. Dr. Buzzard says he becomes more and more disposed to prefer the use of preparations of solid mercury, either internally in the form of mercury with chalk or externally in the shape of inunction with mercurial ointment, to the employment of any of its salts. The result in this instance was opposed to the generally received view that mercury is contra-indicated in ulcerative processes.

WEST LONDON HOSPITAL.

A CASE OF TRAUMATIC STRICTURE WITH FIVE FISTULÆ; EXTERNAL URETHROTOMY; CURE.

(Under the care of Mr. TEEVAN.)

JAMES N——, a carman, forty years old, was admitted into the hospital on April 25th, 1877.

The patient stated that he was knocked down ten years ago by his horse, which kicked him in the perineum. A great deal of blood flowed from the penis, and the scrotum and testicles, which were much ecchymosed, began to swell. He was unable to pass urine, and sent for a surgeon, who relieved him with a catheter. A few days after the accident several abscesses formed in the perineum and scrotum, and when they burst urine escaped through the openings, which did not close. He was confined to bed for nearly six months.

When admitted it appeared that the patient, who was in fair health, passed nearly all his urine through the fistulæ in the scrotum, a few drops only coming through the penis. At the entrance to each opening the skin was puckered, invaginated, and of soddened aspect. There was great thickening in the perineum, and the urethra felt as if it contained a large metal instrument. The stricture commenced at the root of the penis, and appeared to be about four inches long. The patient was kept in bed and purged. At first no instrument of any description could be got to pass through the stricture, but, after a week's rest, one of the smallest whalebone olivary bougies was introduced by Mr. Cumming, the house-surgeon, and kept in. The strictured urethra could not be dilated larger than to allow a No. 2 metal catheter to pass. On account of the great induration of the perineum, scrotum, and urethra, coupled with the presence of five scrotal fistulæ, Mr. Teevan considered external urethrotomy indicated.

Accordingly on May 8th, at 3 P.M., the patient was put under ether by Mr. T. Alderton. Mr. Teevan then introduced the catheter staff of the apparatus described by him in THE LANCET for May 29th, 1875, and demonstrated its presence in the bladder by withdrawing some urine. The upper half of the staff was then fastened on, and the large elastic catheter slipped over it and passed as far as it would go, which was to the root of the penis. Mr. Butlin then took charge of the staff. As Mr. Teevan did not wish to open the penile urethra, or that portion of the canal behind the scrotum, he did not cut on to the metal knob at the end of the elastic catheter, but, having inserted his left forefinger into the scrotum to steady the staff, thrust a bistoury slowly into the perineum, in front of the anus, till its point was lodged in the groove of the staff. Having divided the lower portion of the stricture by cutting upwards to the junction of the scrotum with the perineum, he took a tenotome and passed it upwards in the groove of the staff behind the scrotum, till the knob at the end of the elastic catheter was reached. The sliding elastic catheter was now pushed onwards to the bladder, a few more touches of the knife being requisite to permit of its entry into the vesical cavity. The staff was then withdrawn through the sliding elastic catheter, and all the urine having been allowed to escape through the elastic catheter, it also was removed, as it had demonstrated that the urethra was quite free. At 9 P.M. the same day Mr. Cumming found the patient's temperature 100·2°.

May 9th.—Pulse 104; temperature 100·4°. The urine passes freely through the wound when the patient micturates.

10th.—Patient going on well, and free from pain.

11th.—Mr. Teevan passed No. 19 olivary catheter from perineum into bladder, and No. 18 down the penis to the wound.

The after-treatment consisted in introducing a large-sized catheter every third day till May 26th, when the patient, in order to expedite his cure, commenced to draw off his urine with a catheter. Three days later the wound and fistulæ were all closed. The man left the hospital well and water-tight on June 2nd, able to pass No. 18 with ease for himself.

July 18th.—The patient has been at work ever since he left the hospital, and is still quite water-tight. He passes his catheter once a week.

Mr. Teevan observed that he very rarely performed external urethrotomy, for he regarded the operation as a severe procedure which was seldom called for. It was, however, a very useful operation in certain exceptional cases, and he had considered it indicated in the present instance, for he thought the dense mass of indurated tissue could not be completely divided by any urethrotome. The man had no shivering after the operation, notwithstanding that no catheter was left in the bladder. It was stated in surgical works that rigors after operation were caused by the passage of urine over the raw surface of the urethral wound. The explanation was, however, not correct, as rigors, unless pyæmic, were never seen after lithotomy, where urine passed over a wounded urethra for weeks. External urethrotomy, as performed on what was known as a Syme's staff, was open to two serious objections. 1. When the instrument was introduced it gave no indication of its being in the bladder or otherwise. 2. The surgeon could not be certain whether he had divided all the stricture or not, and hence, when the staff was removed, he might fail to pass the catheter. However, by employing the compound catheter staff he had described in THE LANCET, these objections were overcome.

NORTH STAFFORDSHIRE INFIRMARY.

CASE OF APOPLEXY; RESPIRATION OF CHEYNE-STOKES.

For the notes of this interesting case we are indebted to Mr. W. A. Frost, house-surgeon.

Robert R——, aged sixty-three, collier, admitted July 13th, at 4 P.M. At 10 A.M. of July 12th he suddenly lost consciousness, and fell, striking his left eye against the ground. He remained unconscious up to the time of admission, occasionally talking incoherently. No reliable history of his previous health or habits could be obtained.

Examined after admission, he was lying on his back, with the eyes closed, the pupils being contracted, equal, inactive; the conjunctivæ were sensitive to touch. There was paralysis of left arm and leg, but no facial paralysis. When asked his name he endeavoured to answer, but spoke thickly, as if his mouth were full. Respiration occasionally stertorous; pulse 56, full and compressible; temperature 98°. Swallowing was performed readily. There was extensive ecchymosis round left eye. The head was shaved and ice applied, and a blister placed behind each ear. A powder, consisting of calomel and jalap, was administered.—9 P.M.: Pulse 72; temperature 100°. He groaned at intervals through the night; there were also purposeless movements of right arm, but no movement of left.

July 14th.—9 A.M.: Temperature 101·6°; pulse 68. Seemed slightly more conscious. Right eye open; pupil inactive and contracted.—11 P.M.: It was noticed that about once a minute respiration ceased for about twenty seconds; it recommenced with very shallow movements. Then they increased in depth for ten or eleven respirations, and having reached their maximum depth (which was somewhat above the normal), they gradually decreased, when, after ten or eleven respirations, no movement could be detected. When at the maximum there was occasionally stertor. The period of increase and decrease each occupied twelve seconds. The frequency of the respiratory movements did not vary. The frequency with which the pause recurred was counted at intervals of an hour, and was found to vary slightly; the mean of eight observations gave 6·75 times in five minutes, or

eighty-one times in the hour. Pulse 108, unaffected by the changes in the respiration.

15th.—He appeared to have some difficulty in swallowing, which increased in the afternoon. The pulse became weaker, the respiration shallower, but the pauses were of the same duration and frequency. Died at 7.45 P.M.

Autopsy, twenty hours after death.—Convolutions of the brain flattened. Both lateral ventricles were immensely distended with recent coagulum and serum, the septum being destroyed. In the posterior part of each choroid plexus was a cluster of small cysts filled with serum. Communicating with the right lateral ventricle was a ragged cavity, the size of a hazel-nut, occupying the posterior part of the corpus striatum and the anterior part of the optic thalamus. The arteries at the base of the brain were very atheromatous. Other organs not examined.

The occurrence of the symptom known as the respiration of Cheyne-Stokes is of sufficiently rare occurrence, and its pathology veiled in such utter obscurity, that every instance recorded has a peculiar interest. In the above case the pulse was very carefully examined during the periods of respiration and apnœa, but no variation either in its character or frequency was detected. The sphygmograph was not used. In deference to the wishes of the friends, only the brain was examined, so that there was no opportunity of examining the state of the heart and aorta. The atheromatous condition of the arteries in the base of the brain, however, indicated tolerably clearly what the condition of the aorta must have been. It is possible that this condition of arteries may have concealed any slight variation in the arterial tension that may have existed.

Reviews and Notices of Books.

The Quarterly Journal of Microscopical Science. Edited by Professors LANKESTER, KLEIN, and ARCHER. No. LXVII. London: John Churchill. July, 1877.—This number contains: 1. A *résumé* of Recent Contributions to our knowledge of Freshwater Rhizopoda, by Wm. Archer, part iv., in which he performs a great service by reducing the number of species made by different authors of the same organisms. 2. On the Lymphatics and Parenchyma of the Thyroid Gland of the Dog, by E. Cresswell Baber. The larger lymphatics he describes as often invaginating the arteries they accompany, representing perivascular lymphatics, and communicating, on the one hand, with a network of fine vessels on the surface of the gland, and, on the other, with a system of tubes which pass between the individual gland vesicles, varying greatly in size, and are lined by a continuous layer of epithelial cells. 3. The Minute Anatomy of the Alimentary Canal, by Herbert Watney. The essential points of this paper, which is a *résumé* of a longer memoir in the Philosophical Transactions, are, that the mucous membrane is everywhere pervaded by a reticulum similar to, and continuous with, that found in the follicles of Peyer's patches. In this reticulum, all the glands, vessels, and cells of the intestines are imbedded, and it is by this reticulum that the fat is absorbed and finds its way into the lymphatics and bloodvessels. 4. On a New Genus and Species of Zoanthina-malacodermata, by Angelo Andres, Ph.D. 5. Contributions to the Physiology of Vision and of the Sensation of Colour, by Professor Franz Boll. In this Professor Boll describes the mode of preserving the retina of its natural "vision red" colour, and he shows that the colour is retained much longer in the red than in the violet end of the spectrum. 6. Observations on the Muscular Coat of the Sweat-glands, by Alfred Sangster, M.B., from which it appears that in those several glands of man which possess a muscular coat the epithelium lining the gland is seated on the muscular coat, without the perceptible intervention of any membrane. 7. Contributions to the Minute Anatomy of the Omentum, by Dr. E. Klein. This contains the details of various observations which extend and render more accurate the statements made in his work on the Lymphatics and on the Development of Capillary Bloodvessels, and shows that he antedated Ranvier's description of the "taches laiteuses" and "cellules vasoformatives." 8. On the Protrusion of Protoplasmic Filaments from the Glandular Hairs on the Leaves of the Common Teazel, by Francis Darwin. This very interesting paper shows that certain "trichomes" developed on the leaves of the teazle, though probably originally secretory, are utilised by the plant as a mode of nutrition. The protoplasmic filaments have the power of absorbing nitrogenous matter, and in the seedlings (the teazle being biennial) they probably absorb ammonia from the rain-water and dew, while, in adult plants, they probably absorb the products of the decaying insects for the capture of which the plant is adapted. 9. Notes on the Structure of several forms of Land Planarians, with a description of two New Genera, and a list of all known Species, by H. N. Moseley.

Proceedings of the Medical Society of the County of Kings. New York. 1876.—This volume contains the collected labours of a transatlantic medical society, which meets every month at Everett Hall, Fulton-street, Brooklyn, embracing its proceedings from March, 1876, to Feb., 1877. In addition to the papers, each number of the proceedings contains also "editorial notes" on current events in the medical world. The papers hardly call for special remark, although many of them are of considerable merit. That on Infantile Syphilis, by Dr. H. N. Read (p. 84), is a concise and accurate account of present knowledge on that subject. It is interesting to find that the "phlegmonous syphilides" to which Drs. T. Barlow and F. Taylor have called attention in our columns, have been met with by Dr. Read in seven cases. He alludes to this in the following terms: "A peculiar manifestation of the disease, which I found only mentioned in Vogel's work, and unnoticed by other authors, is a circumscribed suppuration of the subcutaneous cellular tissue, resulting in the formation of small abscesses, which contain an unhealthy fluid, hardly to be designated as pus, but holding the *débris* of the tissues in a rather thin, offensive liquid. These abscesses are painless, and seem to have no connexion with the lymphatic glands; inflammation can scarcely be said to be a concomitant of them, as there is no heat, pain, or redness." There is a brief account, by Dr. L. S. Pilcher, of an Epidemic of Measles at the Brooklyn Protestant Orphan Asylum in 1876, in which 56 out of 300 children were attacked, and three died; one remarkable case recovered after tracheotomy twice performed for œdema glottidis. Altogether, the volume bears traces of good work honestly performed.

Sea-air and Sea bathing. A Practical Guide for the Use of Visitors at the Seaside. By CHARLES PARSONS, M.D. Edin. London: J. and A. Churchill. 1877.—This little guide comes at an opportune moment, when our seaside resorts are receiving their annual crowd of visitors. As a rule, people are altogether ignorant of the principles required to be observed in taking their sea-bath, and bathe at any time, and remain in the water too long. The consequence of this disregard is that, instead of being a refreshment, bathing often produces languor and exhaustion, even in the strong, whilst in the weak the effects are often still more injurious. Dr. Parsons, in the present work, tells us when to bathe, how to bathe, how long we ought to bathe, and what we ought to do before and after the bath. Dr. Parsons also gives nine excellent rules of "what not to do," and those rules we should like to see printed and posted in every bathing machine in the kingdom. There are also a few general directions for invalids, which Dr. Parsons' practical experience renders valuable.

Clinical Lectures on the Curability of Attacks of Tubercular Peritonitis and Acute Phthisis. By Dr. McCALL ANDERSON. Glasgow: Maclehose. 1877.—We need do little more than indicate the appearance, in a convenient form, of these lectures, which have but recently appeared in our pages. The cases adduced by Dr. Anderson are few, but at the same time are very striking. So far as we may judge from their description, the diagnosis of their tubercular nature was justified, and their amenability to a rational course of treatment decidedly unusual. We have certainly outlived the stage of absolute pessimism in the prognosis of pulmonary consumption; and the author of this work writes so hopefully of therapeutic measures, even for cases of acute tubercular disease, that we would fain listen and believe. Before, however, he will be able to make many converts he must produce evidence gleaned from a far wider experience than is given in these lectures.

Butter: its Analysis and Adulterations. By OTTO HEHNER, F.C.S., Public Analyst for the Isle of Wight; and ARTHUR ANGEL, F.R.M.S., Public Analyst for the County of Southampton. Second Edition, entirely rewritten, improved, and augmented. London: J. and A. Churchill. 1877.—We are glad to see a second edition of this little book, and to find that it is in all respects an improvement on the first. If butter-analysis is not yet perfect, it is now, within certain limits, trustworthy; and this important advance is due in a great measure to the method devised by Messrs. Hehner and Angel. We are glad to observe that the useful work of Mr. Bell, of the Somerset House laboratory, is freely acknowledged. The distrust of Somerset House which the public analysts felt, not unnaturally, at first, is, we believe, rapidly vanishing. For our own part we have never shared this distrust, and can now bear willing testimony to the skill, impartiality, and courtesy with which the officials of that establishment discharge their new and important duties.

Fownes' Manual of Chemistry, Theoretical and Practical. Vol. I. Physical and Inorganic Chemistry. Twelfth Edition. Revised and Corrected by HENRY WATTS, B.A., F.R.S. London: J. & A. Churchill. 1877.—The rapidly increasing size of Fownes' well-known manual has at length compelled the editor to divide it into two volumes. Mr. Watts has done his duty in the first of these with his usual skill, but we are compelled to remark that some of the methods which have been suffered to remain are now somewhat antiquated. Perhaps this could hardly have been avoided, but it suggests a doubt whether, after a certain time, it is not better to write a new, than to re-edit an old scientific text-book.

The Monthly Microscopical Journal. July 1st, 1877. No. CIII. Edited by HENRY LAWSON. Hardwicke and Co.—Amongst the papers in this part are two of much interest; one by the Rev. Joseph Delsaulx on the Thermo-dynamic Origin of the Brownian Movement, and another by Mr. N. Hartley entitled "An Explanation of the Brownian Movement." Both refer it to the vibration of molecules consequent on interchange of heat. Paul Petit furnishes an Essay on the Classification of the Diatomaceæ. Dr. Herbert Major gives the Histology of the Island of Reil. Dr. Gibbons Hunt makes some critical Observations on the Microscopes exhibited at the American Exhibition. Mr. G. Moorehouse gives his experience in the mode of using opaque illumination with high microscopic powers. Mr. Hanks describes a simple form of mechanical finger for the microscope.

RECENT advices from Cape Town announce the death, from malarial fever, of Dr. Black, of the Livingstone expedition.

REPORT
OF
The Lancet Special Commission
ON THE
SPREAD OF DISEASE THROUGH LAUNDRIES.

THOUGH cleanliness is the best safeguard against disease, it is nevertheless an undoubted fact that clean linen is often the medium for propagating small-pox and other similar complaints. Under these circumstances, the recklessness and ignorance displayed, not only by common washerwomen, but even by the managers of model laundries, are totally out of keeping with the progress we have achieved in other sanitary matters. The smallest rooms, the most unwholesome back kitchens, still seem good enough for the washing of linen; and the same is dried in passages frequented by the lowest class of persons, and hung between walls on which the dirt of ages has accumulated. The clothes that go nearest to the skin, that are the most likely therefore to introduce through the pores any germs that may fall on them, are thoughtlessly entrusted to a laundress without any inquiry being made as to the suitability of the place where they are to be washed. If they are taken to the suburbs it is simply because rents are cheaper in those districts; but there, as in town, clean and dirty clothes are brought into constant contact, and the washerwoman's family, perhaps also some of her assistants, sleep, eat, sicken, and die, with their customers' linen lying round about them. We have visited innumerable laundries, and what we describe is not the exception, but the rule.

For instance, at Kensal New Town, a district especially favoured by washerwomen, we inspected a row of dilapidated cottages, each containing four rooms, with a little yard behind, and a plot of ground in front, called, by courtesy, a garden. The two central cottages were occupied by washerwomen, each washing for from twenty to thirty families, according to the season. During the month of March last a boy, living in the first of these cottages, was taken ill with small-pox, but, fortunately, the sanitary inspector of the district received timely information, and acted with commendable energy. The linen in the house was all seized and disinfected, and the washing for customers abandoned during the course of the illness. But the inspector had no power to interfere with the neighbours, who still continued washing as usual, hanging up their clothes to dry almost immediately under the window of the room where the patient was lying. In the back-yard also clothes were hung up to dry, and these within two or three feet of the closet used by the patient. The two front rooms of these cottages contain about 1200 cubic feet, the back rooms 600 cubic feet; doors and windows are generally kept open, the neighbours constantly entering each other's houses. But, further, to prove that this case of small-pox was likely to spread, perhaps indefinitely, we should add that the boy's aunt, who assisted at the washing, took the disease home to her husband. The date further helps to demonstrate the origin of this second case, for the washerwoman's husband was ill three weeks after the boy, and this latter was so severe a case that death ensued in a few days. These misfortunes do not seem, however, to have conveyed any useful lesson to the widow and her fellow-washerwomen. We conversed with them for some time, and noted that they were not at all impressed with the necessity of taking sanitary measures to prevent other similar outbreaks.

We visited several other laundries where there had been cases of small-pox or scarlet fever, and in every instance

the clothes there washed must in all probability have been contaminated with the germs of disease, and the action of the authorities was not always sufficient to entirely dispel the danger. Innumerable cases are concealed, and washing taken in during the whole time. In other instances the washerwomen are not aware of the nature and danger of the disease from which an inmate of the laundry may be suffering. Thus we discovered, near the Blackfriars-road, a woman who took in washing for several families for a children's school, and dried the clothes in her small cottage, in the passage or in the back yard—the latter barely twelve feet square, and containing the dustbin and the closet. This woman has five children, and some weeks ago one of her boys was severely attacked with small-pox. Two other children were also unwell, but their symptoms were so slight that the mother let them run about as usual, and it was not till they were nearly cured that the attending practitioner saw them and succeeded in persuading her that they also had the small-pox. How far this woman continued washing while the small-pox was raging in her tiny and overcrowded home is a moot question, as she, of course, will not give all details. We succeeded, however, in extracting from her the confession that she brought the linen from the school into her house while her son was there sick with small-pox, but she urges that she was not then aware of the character of the disease. Subsequently she sent the clothes to be washed by a friend in the suburbs. She also admits that during the whole course of the illness she did her own washing in the house, and also that of a neighbouring customer, whom, she affirms, did not object to her linen being brought into such close proximity with the small-pox patients. It is questionable, however, whether this neighbour was fully aware of the danger she was incurring, and whether she had any right thus needlessly to expose herself by wearing linen which she knew would probably be infected.

To show the prevalence of such cases, we may mention that at the same time, and in the same street, another case of small-pox occurred in a house where washing is also taken in. The back room on the ground floor in this house was used as the laundry It measures 8 ft. 2 in. by 9 ft. 6 in., including therein a staircase rising along the wall, with a coal-cellar under it. At the top of this staircase, which is a little more than 2 ft. broad, there is a bedroom, where the small-pox patient slept, and which is separated from the laundry by a mere wooden panelling and a door, generally left ajar. The ceiling of this upper room slants, and when it reaches the outer wall is only 5 ft. high, while the window is only 2 ft. 6 in. high and 3 ft. 6 in. broad. Close under this window, in a yard measuring 10 ft. by 11 ft., the clothes are hung up to dry, by the closet, and over the dustbin, and lumber of all descriptions. Fortunately, in this case, the small-pox patient was removed to the hospital; but how often do similar cases escape detection? Some of the sanitary inspectors with whom we have conversed on this matter assure us that they have entered rooms where the linen was hanging to dry from strings drawn across the ceiling and a fever or small-pox patient lying on the floor under the damp clothes. The inspector, for instance, of St. Martin's parish, recently discovered a case of this description in Bedfordbury. Here a woman, occupying a single room, with children sick with small-pox lying in the corner, had collected some of her neighbours' linen to wash, and was about to carry them away to the public baths when the inspector entered just in time to seize the bundle. The Broadwall case,[1] already mentioned in these columns, and which caused so much sensation at the time, was not so bad as this, for the patient was not in the same room as the linen. The Broadwall case has, however, a sequel which should not escape notice. In the next house there is another laundry, and in the third house there were two other cases of small-pox, and one resulted in death. These were not removed to the hospital, but were kept in the back rooms. As there was no illness in the middle house, the washing continued there as usual, and the clothes were hung up in the back yard to dry, though on both sides, and at a distance of only a few feet, there were windows whence the germs of small-pox must have escaped and fallen on the damp linen.

Near the Queen's-road, Peckham, there are great numbers of both large and small laundries, and here the small-pox epidemic has been more than usually severe. We were shown one street, consisting of about seventy small cottages, where some thirty cases of small-pox occurred. At one house in this street a man died of the disease, and his room was fumigated; but as there were fourteen persons living in the house at the time, who could not be easily disturbed, we may be permitted to doubt whether the disinfection was effective. In one case, a woman who earned her living by working a mangle caught the disease, and was removed to the hospital. Her daughters, however, still continued to mangle for some days before the doctor discovered them at work and stopped them. A poor washerwoman lived next door, and, on learning that the small-pox was raging on both sides of the street, a gentleman who had given this woman his clothes to wash, chiefly in the hope of helping her, called and suggested that, for the moment, it was scarcely safe for her to take in linen. She, however, warmly rejoined that the worst of the danger was now over, and that the small-pox had not been in her house, though it had done so much mischief among her neighbours. It happened, however, that this gentleman met, the same evening, a local practitioner, from whom he accidentally discovered that a man suffering from small-pox had been removed from his laundress's house ten days prior to his visit. Further, this woman had actually washed nearly all his blankets while the small-pox patient was still in her house, and delivered them back to her customer the day after the sick man had been removed—that is to say, long before any disinfection had been attempted. Thus, every bed in this gentleman's house might have harboured the germs of disease. But, further, this woman was washing for a lady who had been confined at the same time as the small-pox broke out in her laundry, and she also washed a large number of table-napkins for a West-end restaurant. Thus, even at our meals, if we escape being poisoned by our cook, we may catch small-pox from our table-linen. Let us add, that this woman was not prosecuted, is still washing for a number of customers, that small-pox is still prevalent in her street, and that should it again visit her household, emboldened by her past impunity, she will doubtless again hang her customer's linen up to dry in the tainted atmosphere of her home.

Evidently, and notwithstanding the occasional interference of sanitary inspectors, the clothes sent to be washed in small cottages and the crowded dwellings of the poor must come into constant contact with persons suffering from contagious diseases. After washing at home, which at present is the safest of all methods, laundries managed on a large scale evidently offer the greatest security. But even here the dirty linen is not generally kept thoroughly apart from the clean. At the Metropolitan and Suburban Steam-power Laundry Works, where nearly all the table-linen of the great West-end clubs is washed, the dirty linen is certainly sorted in a separate room, boiled and washed in the next compartment, mangled in the third, and ironed in the fourth room. But the clothes hung up to dry in the yard are sometimes too near to the sorting-rooms. The Great Western and Parisian Laundry Company, a remarkable society, governed by a board composed exclusively of lady directors, who hold high positions in the world of art, music, and letters, purpose making a special feature of their sanitary arrangements. Apart from commendable cleanliness and excellent open-air drying-grounds, the chief sanitary advantage of this establishment is due to the fact that the washerwomen sleep on the premises, instead of coming in every day from the worst streets of London and bringing with them the seeds of disease.

As the poor, however, are more susceptible of epidemics than the wealthy patrons of such establishments as those above mentioned, we were more anxious to inspect the public baths built in accordance with the Baths and Washhouses Act of 1846. These institutions, though in many respects so admirable and useful, are, we fear, often the means of propagating disease. It would take too much space to describe how public laundries are disposed. They are for the most part built on the same model. The chief point we have to consider is the fact that no precautions whatsoever are taken to prevent the admission of infected linen. Indeed, the managers of these establishments were surprised when we suggested that this should constitute a portion of their duties. They

[1] See THE LANCET, February 24th, 1877, p. 287.

certainly protested that if they were aware that a woman had brought in infected linen, she would be forthwith compelled to quit the premises; but the idea of prosecuting such a delinquent for having endangered the lives of all the persons in the laundry and the health of all their customers does not seem to have occurred to them. Practically speaking, no control is exercised; with a few rare exceptions, infected clothes have been brought into public laundries without any let or hindrance. Nor are the laundries so disposed as to minimise the chance of contagion. On the contrary, the clean linen is ironed and mangled side by side with piles of dirty clothes, so that the germs may fall from the latter on to the former. We would suggest that in future the clothes should be washed and boiled in one room and ironed and mangled in another. The drying horses should occupy the intervening space between the two compartments, and be heated with a view of not merely drying, but, if practicable, of disinfecting the linen. As it is, we found that the heat varied from only 90° to 120°.

Other cases, besides the one mentioned above as occurring in Bedfordbury, conclusively prove how often infected clothes are taken to public baths. A woman, who washes for several families in Soho, related to us that she had two or three times taken and washed clothes at the Leicester-square public laundry which emitted so peculiar an odour that her suspicions were excited, and, on making inquiries, she ultimately discovered that there had been fever or small-pox among her customers. Yet the manager of this laundry declared that, though he had occupied the post five years, he never knew when these or any other infected clothes had been brought in. At the Endell-street public laundry, where 180 to 200 people wash their linen on Saturdays, the manager in the course of eight years only discovered one woman bringing in clothes from a small-pox bed. Last year 30,000 washing tickets were sold at this laundry. Is it likely that in eight years there should have been only one bundle of infected clothes brought? But the Westminster public laundry affords the most startling illustration of this description. Here the manager has been in office since 1851. An average of 1000 washings are done per week, so that, if this average has been the same throughout, something like 1,352 000 separate bundles of linen must have been brought into this laundry since his tenure of office, and yet, out of the entire number, he only detected one lot that came from an infected house! This, too, only occurred a few weeks ago. We visited the case, and it was certainly the most appalling one we have ever seen. A man, who kept a cat's-meat shop, died of small-pox, and we inspected the premises. On the ground floor there is the shop where cat's-meat in every stage of decomposition poisons the air. The man died in a room upstairs, and next to him lives and works a woman (with children), who washes linen for several families, carrying it backwards and forwards from her bedroom and the public laundry; this, too, after nursing her landlord, the cat's-meat dealer, whose attack of small-pox presented symptoms of more than usual severity. Underneath, in the cellar, a woman and her two daughters (and sometimes her two sons), live, cook, sleep, and, worse than all, mangle the linen belonging to several neighbouring families. The stench and the filth accumulated in this cellar were perfectly appalling. There were no beds, but some heaps of black rags. The walls were black, the floor slippery and oozing with grease and dirt; a feeble light twinkled through a small aperture near the ceiling, but there was nothing we could call a window, and not even a gleam of sunshine has ever entered this awful abode. Here the woman, apparently unconscious of her misery, and not in the least ashamed of her filthy home, was actually congratulating herself that, notwithstanding the death of her landlord, she had still been able to do some mangling during the whole time. Nor is this all. She sometimes washes and hangs the clothes out in the back yard, close to a closet, without a trap, and a dustbin which has never been emptied, and is entirely hidden by the dust and refuse strewn over it. To add to this confusion, a few planks roughly joined together constitute a stable for the pony that fetches the cat's-meat; thus there is manure, as well as general dirt and rotting meat, ready at hand to absorb the germs of disease, to retain them for months, so that the two washerwomen, who are to continue living and working in this house, may have ample opportunities of carrying the small-pox to their customers. The room in which the man died will, of course, be disinfected; but zymotic germs cannot be isolated in a house of this description.

At the St. George's Laundry, Buckingham Palace-road, the same indifference as to the admission of infected linen is displayed, though it is stated that here a woman lost her husband through her carelessness. Instead of emptying the copper used by her predecessor she boiled her linen in the same water, and as her husband died of small-pox a few weeks afterwards, and her child was very ill with the same disease. The widow made some inquiries, and found out that the woman who washed before her had small-pox in her house. Probably, however, the disease was not caught from the copper where the water boiled, but from the germs left on the floor, &c.; but in every case stringent means should be employed to keep infected linen out of laundries, especially public laundries. Printed notices should be hung on the walls warning all of the danger incurred, and threatening to prosecute anyone who knowingly brings infected clothes. A few severe sentences would soon spread knowledge on this question, while women who take washing in at home should be under the constant supervision of competent sanitary inspectors, who would compel them to cease washing whenever any danger was present, giving, if necessary, some compensation for the time lost. Even with all these precautions linen should be disinfected by washing, and not allowed to be near the clean linen till it has been washed, as we do not always know when clothes are infected, and must sometimes unwittingly send them to the laundry when they should be sent to the disinfecting oven.

ABSTRACT OF

THREE LECTURES ON TERATOLOGY.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE I.

MR. PRESIDENT,—The first question which naturally arises in the mind is—What are the causes of malformation? And this is a question which can only receive a very partial answer. So far as we know anything on this subject, I think the causes may be conveniently grouped under the following heads: 1. Inherited tendencies. 2. Abnormal conditions acting directly on the ovum or embryo. 3. Diseases of the ovum. I shall therefore proceed to investigate each of these groups of phenomena in detail. But before doing so I must premise that no sharp line can be drawn between a malformation and a variety; indeed a large number of artificial varieties both in the animal and vegetable kingdom are really malformations. Just as many animals or plants have an inherent tendency to vary in a particular manner, so many species exhibit a strong tendency to be malformed in a specific manner. I do not intend to indicate that the malformed condition is transmitted directly by inheritance; the parent forms are, indeed, almost always perfectly normal; but that the tendency is latent in the species. This is shown by the fact that certain forms of malformation are far more frequent in a particular species or group than in any other; and not a few are confined, or almost confined, to a single species, seldom or never occurring in very closely allied forms. For instance, a malformation of the face, of a very specific character, is exceedingly common in the sheep, but does not apparently occur in the goat or in any other ruminant; yet other forms of deviation from the normal standard are as common in the latter animal as in the former. This relative frequency of certain specific deviations is more easily studied in plants than in animals. Thus a particular malformation may have been observed in, say, fifty species of plants of the most diverse kinds; yet it will have been ob-

served, perhaps, far more often in one species than in all the rest together, whilst it may never have been known to have occurred in the nearest allies of this very species. Some forms of deviation from the normal type in a species must perhaps be regarded as reversions to an anterior and more simple type, and authorities are not wanting who ascribe such an origin to high degrees of malformation. I think, however, that this is never the case, as I shall endeavour to show more fully subsequently; but it is often apparently the case, as the earlier stages of development often resemble forms of a less highly differentiated type; hence many arrested conditions present a similarity of appearance to less developed forms of the same group of animals. All the phenomena observed in double monsters are, as I shall endeavour to show, due to the inherited tendency to multiplication by budding or fission; they are much more frequent in some forms of both animals and plants than in others.

That abnormal conditions acting directly on the ovum are capable of determining the formation of monstrous forms has been abundantly shown by the experiments of numerous observers, amongst whom the first place must be conceded to M. C. Dareste. Observations of this kind have been made chiefly on the eggs of birds; and they may be divided into three groups: (1) Those in which the eggs were placed in an upright position; (2) those in which a greater or less portion of the shell was covered with oil or some impermeable varnish; (3) and those in which the temperature of incubation was abnormal. M. C. Dareste found that the resulting embryoes in the first series were much more frequently abnormal than when the eggs were normally placed, but other experimentalists have obtained a different result. M. Dareste does not appear, however, to have eliminated the variation of temperature, a most constant cause of malformations, in these experiments. In the second group of cases many malformations result, and all the embryoes die at a comparatively early period from asphyxia. I have myself obtained some very remarkable and apparently very constant results from incubation at abnormal temperatures. When the temperature is kept below 100° F. no red blood corpuscles are developed during the first three or four days of incubation, and very few subsequently; and these only in irregular patches—blood islands! The amnion is also arrested in its development; whilst, as has long been known, the whole process of evolution proceeds very slowly. In microscopic sections of the area vasculosa the vessels are seen as perfectly hollow channels, with numerous groups of blood corpuscles attached in masses to their walls in places. These facts are of special interest, as they point to the manner in which the blood-corpuscles are developed in the vascular area, confirming the observations of Kölliker. On the other hand, too high a temperature gives rise to great turgescence, and finally to aneurismal swellings of the vessels of the embryo. Amongst the causes of malformation acting directly on the embryo, in the mammalia, we must include unhealthy conditions of the circulating fluid of the mother; and these, as is well known, are sometimes the result of nervous shock in the human subject. I think, however, there is abundant evidence to show that the nervous system of the mother is not capable of producing malformed offspring by its direct action. From inquiries I have made, I do not think that many mothers pass through the period of pregnancy without having experienced one or more, often several shocks, to which, in the event of a malformed child being born, she would attribute the malformation. To this fact we must also add the very significant one that similar malformations occur in the lower animals and even in plants, in which it is almost needless to remark no such cause could be assigned.

With regard to the third set of causes, there can be no doubt but that the embryo, like the individual after birth, is liable to suffer from diseases, chiefly leading to atrophy of more or less important parts, and sometimes, but perhaps more rarely, to adhesive inflammation of the membranes, dropsies, or ulceration. There is a small human embryo in the museum in which the cranial cavity is laid open by an extensive ulcer. This embryo came under my observation when quite recent, and the ulcer had at that time all the characters of an ordinary ulcer. If the embryo had been further developed it would undoubtedly have been identical with a large number of anencephalous fœtuses.

I shall next draw your attention, Sir, to some of the physiological processes by which malformations are produced. The fact that varieties merge by insensible degrees into malformations has been already referred to, and it must be admitted that every variation is dependent on some variation in the process of development. Normally it is rare that the deviation from the normal type occurs at a very early stage of the developmental process—thus the puppies of the various normal breeds of dogs differ very little from each other—indeed, the characteristics of a species or variety are seldom developed to any marked degree at the period of birth. It may be taken as a well-established law that the greater the difference between two species or two varieties the earlier this difference can be recognised; so in malformations, which are often only abnormal variations, primarily very slight, the result is more marked the earlier the deviation from the normal condition occurs. ..... All the phenomena of malformation seem to indicate that the developmental process is one in which any variation, however slight, affects all the succeeding phenomena of development, so that a very slight diviation at a very early period produces very grave results in the organism. Nothing is more remarkable than the great constancy of the developmental changes in the earlier periods of development.

There are two different kinds of deviation from the normal standard: those which are due to the action of some definite cause, and those which are the result of the combined action of many minute and indefinite causes. To make my meaning plain, I will draw your attention to two examples. A race of men consists of a number of persons who differ from each other within certain limits in stature: there are tall and short individuals. But this variation in size is due to a great number of concurrent causes. Starvation or insufficient food is, however, a definite cause which will produce an abnormal number of undersized individuals. The variations in the first case obey a very well-known mathematical law, called the law of error. So definite is this law that if we know the number of individuals in the community who differ from the mean by any given amount, and also the mean height of the race, we can calculate the number of every other height. But in the case of a definite cause like scarcity of food having caused a reduction from the normal standard, we can no longer calculate the deviations unless all the individuals are equally dwarfed by it. If some families get more and some less food we shall get a greater or less error in our calculations, which cannot be set right without a special knowledge of the manner in which the definite cause acts. So by the converse of the problem, if we have sufficient statistics, we can determine whether we have to do with definite or indefinite causes of variation.

I have on the table before me a number of common nuts sorted according to their sizes by a very ingenious apparatus contrived for the purpose by Mr. Francis Galton. You see at a glance that the number of nuts of the average size corresponds to the number of men of the average size represented in this diagram by the space contained in this curve; and that the number, with each degree of deviation from the average, corresponds in the two cases. There is evidence, however, of the direct effect of disease and starvation on that side of the tray of nuts in which the smaller ones lie. According to the mathematical law, there should be exactly as many smaller than the average as there are larger, but in the real case there is always a larger number. There are in this tray three very large nuts and six very small ones; but if we were to crack all the very large ones we should find kernels in them all, but three of the small ones would in all probability be found empty. There is another fact of great importance in this connexion: according to the mathematical law of deviation, the smallest are just as much smaller than the average as the large ones are larger; but in the real case the small ones are smaller than this. Here again we have evidence of a definite cause. These two skeletons—one that of the Irish giant O'Brien, the other that of the dwarf child called Mad. Cracami, show the same thing. If we consider the giant as having very nearly the maximum height of a giant, the child is too small to correspond to the mathematical law of deviation. But we see at once that the giant's is only a very large skeleton; but the dwarf's skeleton shows evidence of more than variation, its development has been arrested; although it was probably at least eight years of age, its bones are many of

them no more developed than those of an ordinary child at birth.

The only organ which at present has been investigated with sufficient accuracy for the application of the law of deviations to its variations is the human eye; and here the application of the law confirms the view that short sight is due to the action of a definite cause, and is not a mere form of variation.

(This lecture was illustrated by experiments, devised by Mr. Galton, showing the law of deviation in action. A full account of these experiments has been published by Mr. Francis Galton in the Proceedings of the Royal Institution.)

THE BRITISH MEDICAL ASSOCIATION.

THE leading events of the annual meeting, after its complete inauguration on Tuesday, as reported in our last week's issue, were, *socially*, the soirée by the Mayor and Corporation of Manchester, at the Town Hall, on Wednesday; the public dinner in the Assize Courts Hall on Thursday; the garden party at Manley Hall on Friday; and the various excursions arranged for on Saturday.

The soirée—which, by the courtesy of the Mayor and Corporation, was held in the new Town Hall, in anticipation of its formal opening (this structure having perhaps the most superb and completely Gothic interior of any building of its kind)—was equally brilliant and magnificent.

The public dinner was in its way equally a success. The *menu* was as good as could be desired; the service better than could have been reasonably expected considering the large number of the guests. The speeches of the Lord Bishop and others were rather exceptionally good and not long; the excitement of the occasion culminating during the speech of Prof. Haughton, of Trinity College, Dublin.

The garden party—owing to the wonderful beauty of Stanley Hall, the equally remarkable generosity of the President, music, refreshments and games, all of the best quality, amply meeting the wants of 1500 guests,—was an affair not surpassed in its way in the history of the Association, or of its most affluent presidents. The various excursions were not neglected, the most attractive proving those to Southport, the Northwich Salt Mines, Castleton, Macclesfield, and Lancaster, at which places the visitors were hospitably entertained. Both the illumination at the mines and the dinner at Northwich were provided entirely by Mr. Williams, a practitioner of that place.

Professionally, the principal events were the addresses of the President, of Mr. Spencer Wells (a full report of which we published last week), of Dr. Wm. Roberts, and of Dr. Barnes, being the addresses respectively in surgery, medicine, and obstetrics. The subject of Dr. Wm. Roberts's address was "The Doctrine of Contagium Vivum and its application to Medicine." The author said: Though the notion of contagious diseases arising from some minute organisms had existed since remote ages, only since the time of Pasteur had this idea assumed the form of a serious pathological doctrine. The discovery during the last decade of organisms in the blood, and its extensive influence upon the treatment of wounds, under the guidance of Professor Lister, had brought to this question universal attention. The author detailed carefully conducted experiments showing a supported analogy between the action of the yeast plant in fermentation. Also of the Bacillus subtilis, and the action of certain contagious fevers. As in small-pox, so in the experiments detailed, there was alike in both cases the same succession of events—viz., a period of incubation, followed by a period of disturbance, succeeded by a period of subsidence, and finally restoration to the normal state. There was also great increase of the infective material, and immunity from further attack by the some contagion. Saprophytes, of which the yeast plant and the bacillus are types, are the essential agents in all fermentations, decompositions, and putrefactions, the vast importance of which in the economy of nature and the life of man we are only beginning to realise. All the organisms hitherto found associated with infective inflammations and contagious fevers are of the tribe of bacteria, and in order to a fuller understanding of this association a further knowledge of the origin and attributes of these organisms is necessary. In connexion with the origin of these organisms the aphorism *Omne vivum è vivo* had been assailed. It had been alleged that their origin may be spontaneous by a process of abiogenesis, and that they are not the agents but the products or accompaniments of decomposition. These allegations are, the lecturer said, unsustainable, and he proposed to prove that these bacteria, like other organisms, arise from pre-existing parent germs, and in no other way, and that they are the actual agents in all decomposition and putrefaction. After a minute account of certain other experiments the author claimed to have established: 1st. That organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition. 2nd. That bacteria are the actual agents of decomposition. 3rd. That the organisms which appear as if spontaneously in decomposing fluids owe their origin exclusively to parent germs derived from the surrounding media. Facts, apparently contradictory to these propositions, were due to its being not understood till lately that while living monads are killed by a temperature of 140°, the spores of the same variety of monad may survive a temperature of 300°, and that therefore the spores of bacteria may probably survive the feebler heat of boiling water. The practical point to be noted is that a contagium consists in the majority of cases of an independent organism or parasite, and that all infective diseases conform in some fashion to one fundamental type. If septic bacteria are the cause of septicæmia, if the spirilla are the cause of relapsing fever, if the Bacillus anthracis is the cause of splenic fever, the inference is almost irresistible that other analogous organisms are the cause of other infective inflammations and of other specific fevers. The occasional production of diphtheria by scarlet fever the author explained by the capacity for variation or sporting of the contagium in question. And in the same way he suggested an explanation for the otherwise unaccountable occasional outbreak of cholera in India; the cholera virus in this case being an occasional sport from some Indian saprophyte which, by variation, has acquired a parasitic habit, and having run through countless generations, either dies out or reverts to its original type. In concluding, the author said—"I believe that the doctrine of a contagium vivum is established on a solid foundation, and that the principle it involves, if fairly grasped in capable hands, will prove a powerful instrument of future discoveries."

The address in Obstetric Medicine by Dr. R. Barnes was, like the others, listened to by a very large audience. After observing the peculiar propriety in giving an address in obstetrics in Manchester, because it had been the spring whence so much obstetrical knowledge had flowed, he stated as the principal object of his address, to show how medical science and humanity suffer from medicine being not studied as a whole. Owing greatly to the prejudice of the public there had been a too prevailing notion that an "all round" skill in medicine no man was competent to acquire. A specialist is one who, limiting his attention to one or more detached parts of his art, specially neglected other parts essential to make a true physician. A "pure" physician or surgeon, in contradistinction, he supposed, to an "impure" physician or surgeon, is one who purely ignores much that is essential to the right intelligence of his subject. Most strongly would he urge as the remedy to this general and increasing mistake, that the healing art—medicine, surgery, and obstetrics—should be studied as a whole, each branch throwing always much light upon the others. In connexion with this point the author strongly condemned the action of the College of Surgeons, who persist in giving diplomas entitling the holder to practise in all departments of the profession, when they have no guarantee for his fitness except in one department. The apology that the College is waiting for the conjoint scheme is an acknowledgment of the right while practising the wrong. The College should at once make obstetrics an integral part of the qualification for its diploma. Concerning the granting of diplomas to women, he said, without discussing the relative capacity of women, it is certain there are things which men cannot teach women; and the condition of things growing out of this, whether just or unjust, is inevitable so long as the physical and mental differences which have distinguished the sexes

from the Creation shall continue. A diluted examination, to enable women to practise upon women, came particularly within the limits of what the address was specially intended to denounce, a partial, fragmentary, and, therefore, an incomplete education and qualification to practise at all. Pregnancy, the author said, presented the most gradual departure from the physiological to the pathological, and return to the physiological condition, and hence afforded peculiar opportunities for investigation of many morbid conditions. Amongst the neuroses liable to be induced or awakened into activity by this condition, and which in it may be studied to greater advantage, may be mentioned chorea, ague, insanity, glycosuria (which has been studied principally upon animals), yellow atrophy of the liver, pigmentation of the skin and possibly associated changes in the supra-renal gland, thrombosis (as in phlegmasia dolens), &c. These are subjects which neither in any general or any special book have in this connexion been fully discussed; in some, indeed, they have been barely hinted at, and await investigation. Pregnancy is the greatest test of physical soundness, and labour is the greatest of all surgical operations.

Dr. Matthews Duncan, in moving a vote of thanks for Dr. Barnes' able address, and concurring in all that had been therein expressed, suggested that, taking a step further, he would urge the importance of the gynæcological laboratory as a means of pursuing the investigations marked out by Dr. Barnes.

At the last general meeting on Friday, in the report of the Chloroform Committee, it was announced that the committee recommended the Association to appoint a subcommittee of research, to consist of Drs. Ramsay, Coates, and McKendrick, all of Glasgow, and that an additional grant of £50 be made to aid in its researches.

Perhaps on no occasion during the meetings were there more crowded audiences than at the demonstrations given on Thursday and Friday in the Anatomical theatre, by Dr. Sayre, of New York, his forcible method and sound practical observations eliciting general applause. After the reading of a letter of thanks from the chairman of the American delegation for the great kindness with which they had been received, the business of the last general meeting of the session of this most successful reunion came to a close.

THE WAR.

NOTWITHSTANDING the remarkable development in Russia of efforts for the aid of the sick and wounded in the present war, and generally of the medico-sanitary arrangements for the forces in the field, so far as they relate to hospitals and ambulances, it would appear that the sanitary regulation of the Russian encampments by no means corresponds with the more strictly medical elements of the service. The reports which reach us from the camps in Bulgaria and on the left bank of the Danube, indicate that in the various matters which concern camp-hygiene the Russian troops have hardly advanced beyond the position they held during the Crimean War. The camp-regulations in all matters relating to cleanliness would appear to be singularly lax, and the camps exhibit conditions of filthiness which must necessarily sooner or later exercise a disastrous influence upon the troops exposed to them. When it is known that in the immediate vicinity of the Emperor's quarters heaps of human filth and carrion have been permitted to remain quite unnoticed, fouling the air with almost intolerable stench, the worst is to be augured for the troops when they pass into winter quarters. Whatever the peculiarities of the Russian soldier as to his domestic habits, it is difficult to believe that he would prove unamenable to discipline relative to the orderliness and cleanliness of his quarters. The fact we have related as to the Emperor's quarters leads to the suspicion that the soldiers' carelessness as to camp-hygiene simply reflects the indifference of the officers on the subject. This is the more remarkable as it is well known that much anxiety is entertained as to the health of the troops in view of an autumn and winter campaign in, or occupation of, the low-lying lands bordering the Danube and the uncultivated districts of Bulgaria.

The thick cloud of exaggeration and of lying which has enwrapped the horrors of the present war is now being rapidly dissipated, and the ghastly truth is becoming clearer and clearer. There can be but little doubt that the Russian soldiery must be exonerated from the charge of actively taking part in the numerous authenticated atrocities reported, and that the responsibility for them rests almost wholly with the Turks. The conduct of the Turkish forces in following up the retreating Russians in Bulgaria has been often so horrible that it can hardly be passed unnoticed by the neutral European States.

The *Cologne Gazette* reports that the Russian Government has asked Dr. Erisman, a pupil of Professor Pettenkofer, to undertake the charge of disinfecting the battle-fields in Turkey.

Considerable dissatisfaction is felt by many as to the action of the English National Aid Society for the sick and wounded. An important deputation recently waited upon the Society to express this dissatisfaction, inasmuch as hitherto the aid of the Society had been virtually given to the Turkish army alone. It was urged by the deputation that the Society should send equal help to the Russians and Montenegrins. The Society is about to prepare a detailed answer to the charge of partiality in its work. Meanwhile, the ship, which it recently sent to the Black Sea, laden with medical and surgical stores, is doing excellent work there. The representatives of the different English aid societies in Turkey are working cordially with the Red Crescent Society. Lord Blantyre has sent out to Turkey four surgeons at his own expense; and the Stafford House Committee has now, among other things, two hospitals, containing altogether 260 beds, at work in Adrianople.

THE PARKES MEMORIAL FUND.

AT a meeting of the committee of the Parkes Memorial Fund, held at the Royal Victoria Hospital, Netley, August 6th, 1877, letters received from subscribers in reply to the circular issued in March, 1877, were read, and found to agree unanimously in approving of the resolution provisionally adopted by the committee relative to the disposal of the collected money—namely, "That the balance of the money which may remain after paying for the portrait of the late Dr. Parkes, and defraying other expenses incurred by having heliotype copies of the portrait distributed among the subscribers, printing circulars, postage, &c., be placed at interest; that such interest be allowed to accumulate for periods not exceeding three years, and that the amount (about £100) then available be offered for the best essay on a subject connected with hygiene, to be declared at the commencement of each triennial period, the prize to be open to all executive medical officers of the army, navy, and Indian army on full pay (except the officers of the Army Medical School during their term of office)."

It was carried unanimously—

1. That this resolution be adopted.

2. That, if the fund admit, a gold medal, bearing the portrait of the late Dr. Parkes, of value not exceeding £15, be given, in addition to the £100 prize, to the successful competitor, and that a sum not exceeding £50 be set apart for the die.

3. That 1st December, 1880, be the date for sending in essays.

4. That the subject for the prize essay be determined by the Professor of Hygiene in the Army Medical School, in conjunction with a committee formed by the Director-General of the Army Medical Department, the Director-General of the Naval Medical Department, and the Physician to the Council of India.

A VESSEL arrived some few days ago at Falmouth, from Bonny, with three of the crew dead from West-Coast fever. All the others, except the captain, had suffered from the same disease, and for nearly sixty days the captain and one man worked the vessel.

THE LANCET.

LONDON: SATURDAY, AUGUST 18, 1877.

THE subject chosen by Dr. ROBERTS for his Address in Medicine at the recent meeting of the British Medical Association is, of all the problems which are engaging the scientific pathologist or the practical physician, the most important. The question of the nature of disease is indissolubly linked with the problem of the nature of contagium; and the question of the origin of maladies is of even greater practical importance than is that of their nature. Our efforts at cure must be for the most part unsuccessful until we know more of the nature of the processes in which diseases consist; but our attempts at the prevention of disease must be even less successful until we know the nature of the mechanism by which the disease, as we recognise it, is produced.

It was to the latter point that Dr. ROBERTS's address was, in the main, devoted. As admirable in style, as it is interesting in scope, it will, without doubt, justify the high commendation of Sir WILLIAM JENNER, who remarked that it will form a new point of departure for medical opinion. It contains some things that are fresh and of the highest importance; and although most of the facts and opinions of the address are not new to those who have followed recent research and controversy, there is very little that will not have been new to the majority of its hearers and readers, and all the facts and opinions, old and new, are stated with admirable force and lucidity.

This latest contribution to the doctrine of a "contagium vivum" is based, as such, on certain recent continental investigations, and on the light which by analogy the doctrine throws on many of the phenomena of disease. We doubt if in this country the accession of strength which the so-called germ theory of disease has received has been fairly realised. Modern investigation has accumulated a strong chain of evidence in support of the doctrine that two diseases, the relapsing fever of man and the anthrax or charbon or splenic fever of animals, are invariably accompanied by the presence of minute organisms—the Spirillum Obermeieri and the Bacillus anthracis respectively; and the association is in each case so remarkably close that it is difficult to resist the conclusion that the organism is the cause of the disease. On the one hand, every paroxysm of relapsing fever may be predicted by the appearance in the blood of myriads of these minute spirilla: they are present during the paroxysm in numbers which vary in accordance with the conditions of life of the organism; and the disease is communicable by fluids, and by fluids only which contain this organism or its germs, the germs being proved by subsequent development. On the other hand, anthrax is accompanied by bacteria with unvarying uniformity. The researches of PASTEUR on this subject we commented on last week; and equally suggestive are the experiments of COHN, to which Dr. ROBERTS chiefly refers, and in which the whole life history of the organism was traced out, the marvellous power of vital resistance possessed by its spores was established, and the organisms were cultivated artificially, and shown to be then equally effective in generating a morbid state identical with that produced by the fresh virus. Less simple and less conclusive as evidence of the doctrine of contagium vivum, although of great significance with regard to the mechanism by which contagium vivum may operate, is the third instance adduced by Dr. ROBERTS—that of the nature of septicæmia. The dependence of septic poisoning upon minute organisms is indirect. Septicæmia is due to decomposition; and decomposition may, as is asserted, be dependent only on the growth of bacteria. But septicæmia may be caused by the products of decomposition—the albuminoid "pyrogen" of BURDON-SANDERSON — without the intervention of any formed organisms in the septic process, although they may have been concerned in the decomposition.

Microscopic investigation has associated the presence of organisms with many other diseases, although there is at present no such evidence of casual relationship as exists in the case of anthrax and relapsing fever. Do the analogous features of all diseases justify the wide generalisation from the limited facts at our command, that all specific fevers, like anthrax and relapsing fever, are due to the growth of organisms? The question is answered by Dr. ROBERTS with an emphatic affirmative, but other authorities hesitate to build so extensively on an unproved foundation. It must be confessed that until the question of what may be termed, with Dr. ROBERTS, the pathophytal theory of disease was raised, no one doubted the similarity in ultimate nature of the acute specific diseases; but it must be confessed also that the intimate study of their propagation has hitherto rather lessened than increased their points of unity. An instance of this is afforded by the facts insisted on for another purpose by Dr. ROBERTS, and to which we have referred, that a paroxysm of septic fever may be produced by an organic substance apart from formed organisms. Allowing, with him, that pyrogen is formed at present only by the agency of these organisms, it has yet to be proved that organic matter of equally morbid power may not arise in other ways—may not be, for instance, a product of vital processes, in beings far above the "saprophytes" in organisation. At any rate, the fact that such an organic substance will produce the septic fever apart from the organisms by the growth of which it may have arisen, is a point of difference from the diseases, as anthrax, which have been at present only produced by the living saprophyte itself.

One of the most original portions of Dr. ROBERTS's address was occupied with a comparison of the phenomena of disease and of plant life. The analogies of fermentation and of disease, which, since the time of BOYLE, have exercised so profound an influence on speculative pathology, receive a striking addition in the demonstration that heat is evolved during the process of fermentation; a process which, in its incubative period, infective origin, infective power, direct and indirect, and final protection from recurrence, presents resemblances to the progress of an acute specific disease so close as almost to justify the designation of "a fever in a bottle." The analogies between the variations in the process of contagion

and of vegetable growth, if less demonstrable, are not less striking, as Dr. ROBERTS puts them. The variation in the persistence of the activity of the contagium on different occasions may depend, as it has been almost proved to do in the case of splenic fever, on the different resisting power possessed by adult organisms and by their germs, either of which may, on the pathophytal theory, communicate a disease. The capacity for "sporting," the development among plants of a variety which may ultimately again be lost, as such, by reversion to a parent type, may, Dr. ROBERTS suggests, be the analogue of the process by which, among saprophytes, a harmless becomes a septic bacterium, or a bacterium of decomposition becomes a "pathophyte" capable of producing typhoid fever. A similar process may explain the occasional startling mutability of certain specific diseases, as scarlet fever and diphtheria, while an indisposition to variation may be the cause of the constancy of type and specificity of origin of small-pox.

There has grown up an intimate association between doctrines of the nature of disease and contagium and of the origin of living organisms. The association is not a necessary one. The advocates of spontaneous generation do not deny the multiplication of the organisms by other means, and may hold a pathophytal theory of disease—a doctrine of a contagium vivum; while, on the other hand, the biogenesist may find the balance of evidence against the theory that organisms are themselves the virus of disease. But the doctrine that diseases which do not arise *de novo* depend upon organisms is necessarily founded on the theory that the organisms themselves do not arise *de novo*, and hence the theory of biogenesis is the necessary basis for a universal doctrine of contagium vivum. It was, indeed, the clear result of his experiments on spontaneous generation which led Dr. ROBERTS to the study of the facts which relate to contagion, and to the conclusion at which we have glanced. An account of this experimental groundwork fitly forms the opening portion of his address. He has certainly furnished very important evidence in favour of the propositions which he enunciates. His first conclusion, that "organic matter has no inherent power of generating bacteria and no inherent power of passing into decomposition," seems, indeed, to be established by his experiments, corroborating and extending the evidence which had been before adduced. Especially remarkable is the fact that organic fluids, peritoneal and pleural effusions, egg albumen, and even blood and pus, if conveyed into sterilised vessels, and protected from contamination by the air, remain free from decomposition. Here the conditions of the problem are reduced to the simplest form. There is no question of complicating effects of the sterilising process. Exclude all contact with germs, and there is no decomposition; admit the smallest amount of germ-bearing air or water, or inoculate the fluid with bacteria, and decomposition at once sets in. Strong evidence, if less logically conclusive, is afforded by this and another experiment in support of the second proposition that "bacteria are the actual agents of decomposition." He found that infusions otherwise fertile might be effectually sterilised by mere filtration through unglazed earthenware—a process which only arrests formed and solid particles, and allows, he ascertained, soluble ferments to pass without obstruction. The liquids thus filtered remained free from organisms and free from all trace of decomposition. From this experiment, supported as it is by his successful corroboration of PASTEUR'S and LISTER'S chief observations, he draws the third conclusion, that "the organisms which appear as if spontaneously in decomposing fluids owe their origin exclusively to parent germs derived from the surrounding media."

To this experimental evidence against the doctrine of abiogenesis, Dr. ROBERTS has added certain speculative considerations of a very ingenious character. Saprophytes, the organisms which develop in decomposing organic matter, are destitute of chlorophyll, and are unable to assimilate carbonic acid, and therefore obtain their carbon exclusively from the more complex compounds which have been prepared for them by living beings. It is impossible that the primordial forms of life can have belonged to this group. "Saprophytes are the last, not the first link in the biological chain." Under their action, progressive disintegration of organic compounds occurs. Organisms could not have begun in this way. The primordial protoplasm must have been either the chlorophyll-body itself, or a body having a similar mode of nutrition from inorganic matter. "If the process (of spontaneous generation) is still going on among us at this day, it may be assumed as probable that it still proceeds on the original lines laid down at the dawn of life.....The spontaneous origin of saprophytes is logically impossible." We confess the impossibility is not obvious to us. If it is granted that originally abiogenesis occurred in a certain way, we see no necessity that, through all the varying conditions of the universe, it should occur in no other way. The conditions of matter which existed at the dawn of life exist now, and abiogenesis may be proceeding amid them; but there exist conditions of matter which did not exist then, and the organic matter which living beings produce may, it is surely conceivable, furnish a new starting-point for a spontaneous origin of living organisms. We do not say that such an occurrence is probable, we only deny that there is in it anything logically inconceivable. Of greater cogency is Dr. ROBERTS'S second objection, that the saprophytes, as they present themselves, are too highly organised to permit of the hypothesis that they have originated *de novo*. It must be confessed that the information which we now possess of the life history of, for instance, the Bacillus anthracis, gives weight to the objection. Its growth has been traced through change of form to sporulation, and from an evolutionist point of view it is certainly difficult to believe that a few hours can have sufficed for the production of such an organism.

Such are the scope and character of the Address in Medicine. Whatever opinion may be formed concerning the doctrines advocated, all will accord to it the merit of having dealt with a difficult question with singular ability and vigour. If it has not bridged the gulf which still separates us from an adequate and comprehensive theory of contagion, it is at least a stepping-stone to such an end.

THE week just past has witnessed the close of a Parliamentary session that for barrenness in legislation has no parallel among those of several generations. Of measures

promised or unpromised, two important Bills and a small modicum of unimportant ones have struggled into permanent existence. When we turn to the fair hopes raised at the commencement of the session, it is pitiful to see how thoroughly they have been dissipated, particularly as regards the measures in which our readers are more particularly interested. Bills relating to the Factory Acts, Public Health (Metropolis), Public Health (Ireland), Habitual Drunkards, Amendment of Medical Acts, Sale of Food and Drugs, and Burials, have all been before Parliament during the session that is now past, and all are among the "massacred." The Factory Acts Bill, the provisions of which we explained in THE LANCET of June 2nd, although a consolidation measure, was one that affected the health and prosperity of a very large section of the community, and its success was of course important. The Public Health (Metropolis) Bill was a crude and ill-considered string of clauses, with many grave omissions, and an equal number of minor provisions calculated to offend the dignity of local authorities. It met with determined opposition out of doors, and was consequently withdrawn, Mr. SCLATER-BOOTH threatening to introduce a much stronger measure next session. The Public Health (Ireland) Bill, with its three hundred clauses, was persistently opposed by the Irish obstructives, and did not even reach committee. The Habitual Drunkards Bill seems to have been snuffed out at a very early period of the session. The Burials Bill was lost in the House of Lords entirely on account of its religious, as distinguished from its sanitary, aspects; the Government on this occasion suffering a defeat. And the Sale of Food and Drugs Act Amendment Bill was slaughtered on Tuesday, on the very eve of the prorogation of Parliament.

It may be within the recollection of our readers that towards the end of the session of 1876 a Merchant Shipping Bill became law, shorn of all clauses relating to the health of seamen. These clauses were cut out of the Bill on a distinct pledge given by the Home Secretary as well as by the President of the Board of Trade that a Bill relating solely to the condition of seamen should be introduced this year. But the session has come and gone, and we have heard nothing of the Bill, nor has any excuse been made for its non-appearance.

The retrospect shows but two practical sanitary results of the session. Several provisional orders have been made and confirmed in connexion with the operation of the Artisans' Dwellings Act, which are of course so many useful steps towards furnishing wholesome dwellings for the poor in our cities and large towns; and the Canal Boats Act has become law, the one puny sanitary bantling that the President of the Local Government Board has brought into existence. But the provisions of this Act are so feeble, and the one essential clause (indicating the cubic space allowed for each person) is so ridiculously opposed to all principles of health, even as set down by existing legislation, that we may predict for the abortion a speedy death.

It is hardly necessary to allude to three Medical Bills that were drawn, or were actually before the House of Commons, as long ago as May. That of the East London Defence Association, providing for the more accurate definition of the offence of illegal medical and surgical practice obtained only a first reading. Sir DOMINIC CORRIGAN'S Bill, the chief object of which was to establish examining boards for persons holding civil medical appointments, and a Bill relating to conjoint boards, promoted by the British Medical Association, did not appear at all.

It is satisfactory to observe that a disposition exists on the part of the Home Secretary to uphold the dignity of the medical profession in its relations to the Government and the public generally. Mr. CROSS, in granting the return of licences issued under the Vivisection Act of last session, declined to furnish the names of those persons to whom certificates had been given. On several occasions lately he has requested the assistance of medical men in determining doubtful cases of lunacy, the subjects of which were persons condemned to death. One of these cases occurred last week, when the physician engaged in the case was summoned to confer with the Home Secretary, and a reprieve was granted.

After reviewing past events, it is proper to look hopefully to the future. Preventive medicine is still struggling on in spite of the present confused condition of sanitary legislation. The London water-supply question has, during the past week, again cropped up, and will afford good food for discussion during the recess. Indeed, as the present Government, though numerically powerful, does not appear to be capable of grappling successfully with many subjects at a time, we recommend this water-supply question to their attentive consideration, and trust that in February the Home Secretary or the President of the Local Government Board will be ready with a Bill that shall provide a pure and abundant supply for the entire metropolis.

IT is significant, and to the credit of the Council of the British Medical Association, that Mr. SPENCER WELLS was entrusted with the Address in Surgery. If ovariotomy is not surgery, so much the worse for surgery. It will be allowed by all who have read the Address in Surgery that Mr. WELLS did not restrict himself to the theme upon which he is *facile princeps*. We should, for our part, have liked his address all the better if it had not been so discursive—if he had restricted himself more severely to the piece of surgery, and its results, with which his name will be for ever most brilliantly associated. It is interesting, no doubt, to be taken back to the surgery of ELIZABETH'S time, and to learn that if ovariotomy had been then perfected as it is now the history of England might have had to be written very differently. It is interesting to go back to the early meetings of the Association: as in 1835, at Oxford, when lithotrity was demonstrated by COSTELLO; or in 1836, at Norwich, when OWEN mentioned his discovery of trichina spiralis; or in 1839, at Exeter, when JAMES of Exeter mentioned as a great novelty that JEAFFRESON of Framlingham and KING of Saxmundham had both successfully extirpated the ovary; or in 1847, at Derby, when WALSHE of Worcester introduced the subject of anæsthesia, and CROSSE hailed it chiefly as a means of disarming a patient of his antagonism! All this retrospect is very interesting, and even instructive. But when the surgeon entrusted with the duty of delivering the Address in Surgery has such a weighty message of his own

to deliver to his generation as Mr. SPENCER WELLS has, and finds himself face to face, not with a London medical society merely, but with a large and general audience of practitioners from every quarter, he may be excused doing the comparatively easy work of history, and be almost expected to tell all his message, and the history of the operation which has made him great. There are two things about the surgery of ovariotomy which would especially have justified Mr. WELLS in devoting the whole of his address to it. First, its boldness; and, secondly, the fact that ovariotomists were the first among surgeons to perceive the importance of pure air and other good physical conditions in the surroundings of patients. The boldness of ovariotomy is the first thing that strikes us. We are impressed with the courage of the man who lays open the abdominal cavity. We, who have been now well taught the wonderful tolerance of the peritoneum for this sort of interference, which our immediate predecessors associated chiefly with post-mortem examinations, can with difficulty realise the horror with which it affected even cool unsentimental men like LAWRENCE, who thought the operation could not "be encouraged without danger to the character of the profession." But even now the most favourable ovariotomy is a marvellous liberty with the human body, and it is difficult to do justice to the courage and the faith of the men who first undertook it under every kind of discouragement from the heads of surgery. It will remain a striking fact that this great feat was undertaken in a determined and successful way by one who up till 1855 had been a surgeon in the navy; that he had to wait three years for 10 cases; and that in less than twenty years he should be able to say that he had done 870 ovariotomies, and, on the somewhat liberal computation of Lord SELBORNE, have added 18,000 years to the life of women. But Mr. SPENCER WELLS had almost a greater subject than this, over which he skimmed with modesty—viz., the lesson taught by *ovariotomists*, above and before all other surgeons, of the necessity for excessive care to operate only in a perfectly pure and unpoisoned atmosphere. Some of the care was no doubt begotten of fear, from knowing that so many unfriendly eyes were watching their work. If a man died after amputation of the thigh, nobody complained. But if a woman died after ovariotomy, "a fundamental principle of medical morality was outraged." Be this as it may, ovariotomists have not been content with brilliant operations. They have been wise and painstaking in all the minute details of their work; in securing pure, warm air; in the administration of food; in dressing, &c. They practically anticipated very much the doctrines of antisepticism, which is promising to double the success of surgeons. Mr. WELLS pointed this moral of ovariotomy in pithy words: "I think those who are to become the conservative surgeons of the future must not be content with saving limbs only—IT IS LIFE THAT MUST BE SAVED." These words indicate the spirit in which and the care with which ovarian surgery has been executed; and Mr. WELLS missed a great opportunity of enforcing them. There was yet one other misfortune incident to the length of the interesting historical retrospect in which he indulged. He was obliged in the barest way to indicate his views of the future surgery of fibroid tumours of the uterus. If time had remained after elaborating his views as to the way in which mortality has been kept down after ovariotomy, here was a subject on which he might have spoken at once with authority and with prescience. But we must not be ungrateful. Mr. WELLS said enough to show that he is no mere specialist, but a broad, bold surgeon, who sees in his own great achievements only the natural reward of surgical care.

SCIENCE, in its broadest and most practical sense, claims the service of *facts*. Their accurate observation, and faithful record, are fundamental conditions of success in research, and they form the data of every rational computation. It is impossible to overestimate the importance of thorough honesty in the collection, and precision in the description, of materials so essential to the progress of knowledge. It is generally easy to see what we look for, whether in the field of a microscope or the wider sphere of facts and circumstances that comprise the experience of life. No difficulty—on the contrary, an unconscious and almost irresistible tendency—exists to view them in a light favourable to our preconceived notions or theories. We colour the aspect of affairs with the hues most consonant with our own conceptions. No intentional deception is practised; fancy, unwittingly influenced by hope and prejudice, guides the pencil, and the mental picture produced as nearly approaches the ideal conception as the facts will allow. In its personal consequences this falsification is injurious; it debilitates the judgment by placing it in subjection to the caprice of fancy, itself the creature of conceit. Of far greater moment, however, is the mischief wrought on the stock of knowledge from which the workers in science draw the materials of their industry. Errors of observation seldom admit of correction, and, when once a real or supposed fact is placed on the register, it is beyond the reach of remedy. Faults, vicious colouring, and distortions incorporated during the process of observation and description are perpetuated, and will not afterwards be detected except some obvious incongruity should discredit the record.

These and other considerations which the remarks already offered will suggest can scarcely fail to show how prominent a part the narration of facts, clinical and experimental, must play in the progress of medicine. It is not too much to say that the business of accumulating facts is at once the most important and extensive branch of medical enterprise, and it must always devolve upon the general body of the profession; hence the need that, whatever else may be neglected, the faculty of close and accurate observance and expert narration should form an integral part of medical education. The power of intelligent perception is not so much a gift as an aptitude or function to be acquired by tact and perseverance. Observation in its true medical sense comprehends more than the mere cognition of appearances; it includes the noting of associated conditions—the surrounding and dependent circumstances of fact—and the relations of cause and effect, so far as these may be discoverable from the sequence of occurrences. Such analysis and synthesis as the efficient performance of this task implies are clearly beyond the capacity of an untrained mind. Observation of this extensive and composite character presupposes an acquaintance with something more than the first principles of

science. Experience may eke out the defects of original study, but if the lessons of early, and many busy, years of professional life are not to be wasted, if the young practitioner is to become at once a labourer in the field of science and a useful contributor to the common store of information, this serious and difficult business of observing and recording facts must be studied as a branch of work, while habits of industry may be formed, and energy directed into useful channels.

The great business of collecting and collating facts cannot, however, be left entirely to individual enterprise. The skill and pains bestowed by the multitude of observers must be combined and concentrated. This is in part accomplished by the agency of societies, which might be incomparably more effective and render better service if, instead of acting as mere centres for the deposit of contributed information, they were to undertake the complementary task of digesting the material accumulated,—in a word, if presidents were selected with a capacity for, and were required to perform the duty of, "summing up," and the discussions arising on papers read and cases reported were directed to the elucidation of points of scientific interest rather than the glorification of men and methods of treatment. Much, however, remains to be achieved before the net gain to medical science arising out of the total sum of work done by the profession will be commensurate with the labour expended. Great advantage would accrue by the adoption of common formulæ in reporting cases, the measure being taken by some approved standard. It is true that no two manifestations of the same disease are exactly alike; but points of difference, which, in fact, constitute the features of special interest, are lost or improperly recognised when no pains are taken to mark the significance of such divergences from the habitual course of disease as make up the distinctive character of the case. Little, if anything, is gained by the mere aggregation of similar occurrences; it is by the segregation of forms, and their association with conditions or temperaments, by which the individual manifestation is determined, that a profound and intimate knowledge of disease and practical medicine must be gained. The individualising of special forms would obviously be facilitated by the adoption of common formulæ. We think the whole subject of clinical reporting is ripe for the consideration of a Commission which might be appointed by the scientific societies generally. Good would certainly result from a well-considered expression of opinion as to methods of narration, and now that the old nosologies are all laid aside, it would be convenient if select cases were pointed out as standards, with which the instances of morbid action observed could be compared in description. Nothing of permanent value has been done in this department for many years past, and much would be gained by a serious and combined effort to supply the deficiency.

If an illustration were required to enforce the essential importance of accuracy in reporting, it would be found in the dire confusion and consequent worthlessness of general and political news at the present moment. Everything is left to conjecture in relation to the progress of events in the East; each belligerent in the campaign now in progress tells his own story, and partisans colour the narrative of events with hues of their own conception. It is impossible to believe the false constructions placed on successive events are intentional; the penalty of exposure is too promptly paid in these days of rapid intercommunication to render purposed misrepresentation probable. The fact, however, remains—truth is not to be discovered among the contradictory assertions of reporters who see everything from special and prejudiced standpoints. The remedy for this state of things is obvious, although in the heat of the strife the parties concerned may not be disposed to adopt it. There is only one measure by which the world can secure a full and accurate knowledge of the truth about international affairs, and that is to neutralise the sources of information. The best way to accomplish this purpose would probably be to institute an international commission for the circulation of news. The collection of facts might be carried out in each nationality or district by a sub-commission of reporters responsible solely and directly to the central neutral authority. The value of work done by such a commission would be great indeed. The truth about interests and purposes political and financial, and the truth about policy and conduct, would be brought to the light of day. This in itself would conduce sensibly to the establishment of order, and the enforcement of integrity as a guiding principle of aim and action. We simply throw out the suggestion as offering a way of escape from a position of confusion and embarrassment which no loyal subject of our own or any other State can fail to deplore. Truth is the great regenerator of men and communities. The first condition of wise counsels and success in enterprise is an accurate knowledge of facts; the same principle applies to the affairs of science and statesmanship. How intimately the truth about men, racially and individually, in health and disease, is connected with the issues of fortune and life in a nation, only those who have made man, as a whole, the subject of profound study can tell.

THE report of the Commissioners appointed by the Home Secretary to inquire into the discipline and management of Christ's Hospital, and of the circumstances which led to the suicide of the boy GIBBS, is a highly instructive document. It is certainly to be desired that it could have been obtained at a less cost, but it would not then have attracted so much attention. As it is, the present condition of the institution can scarcely be tolerated, now that it has become publicly known, and the abuses, or, as they are euphemistically called, the errors, of its working can hardly long survive the eloquent satire conveyed in the calm language of the report.

We may accept the conclusion of the Commissioners, that no one was to blame for the lamentable suicide; that, in fact, the blame must be divided between the system of education and the character of the boy. But we cannot so readily believe that the boy committed suicide out of sheer malice and spite, either against the system or his superiors. From a medical and scientific point of view this theory would be untenable, even if there were not other evidence against it. In every case of suicide it is reasonable to believe that there is an efficient cause, residing either in the individual or his surroundings, or a combination of the two. The tendency of coroner's juries, often aided by medical evidence, is to regard all cases as

examples of "temporary insanity"—a convenient legal fiction, and a consolation to sorrowing friends. But if we look more closely we shall find that there are usually predisposing physical and mental conditions, which, when aggravated by special circumstances, lend to this result. Especially when when suicide occurs at so early an age as twelve, when, to say the least, it is very rare, we may be almost sure that some such evil conjunction has existed. We have no right to assume that the occurrence was, so to speak, accidental, and is to be regarded as an unaccountable phenomenon. We know from the biography of eminent men that ideas of suicide are not uncommon in boys, the rarity with which the idea is carried into execution being due to other stronger motives, and to the absence of causes which come into play at a later period. Two classes of temperament seem especially predisposed to ideas of suicide—we speak now only of boys. The one class timid, often of delicate and sensitive organisation, with considerable mental ability, but readily fatigued, though capable of great exertions under favourable circumstances, when surrounded by unsympathetic or unkind companions form the idea, but do not often carry it into effect, unless, owing to some severe strain, they have actually lost for a time the control of reason. Another class consists of those who, like this boy, are of stronger organisation, with comparatively defective mental power, liable to outbreaks of passion, but capable of considerable application and diligence in certain lines, stubborn and fixed of purpose, and sullen when thwarted, yet, with judicious guidance, and under the control of affection, not difficult to manage. In the latter class the fixity and doggedness of purpose for good or evil, and the inability to look at all sides of the subject, may lead to the carrying out of the idea, which is prevented by the irresolution and the mental hyperæsthesia of the other.

To pursue our analysis, let us suppose a boy of such a disposition in a high degree placed in circumstances such as exist at Christ's Hospital. Coming from the country branch, where he presumably had the advantages of fresh air and exercise, and the company of boys of his own age, he may be supposed to have felt a certain amount of restraint in London when put under the control of boys older than himself. For a little while the idea of success and the honour of promotion may have kept him up. But soon he began to find his level, and that not a high one. Neither in nor out of school hours could his existence have been a very happy one. According to the evidence in the report, he "was frequently caned by one of the masters during school hours," and "several times punished" by the monitor "for breaches of discipline in the ward"; and we may judge of the character of the punishment from an instance where it consisted in "slapping him on the face several times with his open hand." These, however, seem to be ordinary methods of instilling learning and teaching good manners at Christ's Hospital. With absolutely no moral control, no kind advice or restraint, a sullen wayward temper would not tend to improve under such conditions. But at last he was guilty of "gross insolence in mocking the man who was drilling him," and, being found out, he was caned. This seems to have been too much for him, and he ran away home, saying that he was cruelly treated at school, which he may have sincerely believed. Taken back to school, he was flogged for running away, receiving eight stripes. For a week he seems to have been quiet, and nothing material occurred, when he again was guilty of quarrelling with another boy, and was "sharply punished" by the monitor. On the following day he ran away again; and this time, as his former accounts had not been credited, he resorted to fiction to make his case seem a pitiable one, and said that he could not live at the school, and that if taken back he should hang himself. Notwithstanding this he was taken back, and, from the accounts given, seems to have fully made up his mind to commit suicide, for he "was in good spirits" when he was taken back, and "looked as if he did not care much." Then when shut up alone, he hung himself, being, according to the verdict of the jury, "not accountable for what he did." Such is this curious psychological puzzle—a wilful, wayward, backward boy goaded to madness by that which he must have erroneously considered as the "oppression which maketh the wise man mad." But throughout we hear nothing of any kind and judicious advice or effort at moral control—nothing but discipline and corporal punishment. The Commissioners clearly show that not only does no such moral suasion or control exist, but that they are impossible in the present position of the school. The methods of teaching and discipline appear to be part of the venerable traditions, or, as we should call them, rooted abuses, which cling around the old building in Newgate-street.

We long ago pointed out the urgent necessity for the removal of the school into the country on hygienic grounds, and the strong recommendation of the Commission to the same effect on other grounds may at last lead to the step being taken. We have urged that the centre of a great city, in nowise noted for the purity or freshness of its air, is not the place for the healthy training and education of seven hundred boys; that the space available is quite insufficient for proper playground; that the buildings themselves are entirely to be condemned on sanitary grounds, especially as regards overcrowding and want of ventilation. It is true that no longer do the odours of the meat market, wafted by the breeze from the south-west across the school, pollute the air. But in no other respect has the hygienic condition improved since the time of which we speak. And with these insanitary conditions we now see that there are several evils involved, due to the same set of causes, and incapable of removal whilst the school is on the present site. The want of supervision by the masters, of that association which can alone enable them to know the character of the boys, to sympathise with them, and thus to be in a position to exert an influence on their character, are amongst the most serious blots on the present system, which is half a century behind the age. And, apart from other evils, every medical man knows that such absence of control may lead to the development of tendencies to vice in boys of from fourteen to eighteen years of age, which can be only held in check by strict supervision. And if only to escape from these evils and to do away with a tyrannous system of discipline, we should heartily support the view of the Commissioners, that, for a thorough reform, the removal of the school from London is indispensable.

OUR attention is again somewhat conspicuously directed to the subject of medical practice as carried on by druggists, inasmuch as an extended discussion on the matter took place at a Council meeting of the Pharmaceutical Society held on the 1st instant, the practical result of which was that the Solicitor of the Society has been instructed to defend a member threatened with prosecution under the Apothecaries Act for carrying on counter practice. It is not necessary to record the special circumstances of this particular case, but comment is required, because, by the terms of the resolution above referred to, the Pharmaceutical Society, as it appears to us, distinctly pledges itself to defend medical practice by chemists.

We were at considerable pains to discuss this question in detail on the 16th of June last, and the reply with which we were favoured in the columns of the *Pharmaceutical Journal* did not at all shake our beliefs. For it is hardly necessary to state once again that the practice is illegal. It was acknowledged to be so by most of the speakers who voted for the resolution above referred to. The Vice-President, however, strengthened, or appeared to strengthen, the hands of those who advocate a resistance to the law by quoting extracts from THE LANCET, written and published in 1826.

THE LANCET defined the position of chemists at that time, saying they were accustomed to prescribe and even to visit patients." We have examined a file of THE LANCET for 1826, and fail to find the exact words quoted. We may give, however, for the benefit of those interested, the following sentence taken from a leading article in THE LANCET of August 12th, 1826:—"If a man carry on the trade of chemist and druggist, what law is there in force to prevent him from exercising all the functions of the well-educated medical practitioner? None, if we except the charter of the College of Physicians, which, since the decision of the House of Lords in 1705, on a writ of error in the case of Seale *v.* Rose as regards attending and prescribing, may, like the Apothecaries Act, be considered a dead letter; in fact, the House of Lords decreed that it was legal for an apothecary or chemist to visit, prescribe, and dispense medicines for patients without having any licence from the College of Physicians; and this fact ..... seems to confer on the practice of the chemist an authority which physicians, we believe, will not be very willing to recognise." This may appear strong evidence for the defence, and we leave it to legal minds to gauge its value. It is satisfactory, however, to observe, by the drift of the discussion that occurred on the 1st instant, that the large majority of speakers had a conviction that prescribing over the counter was illegitimate. The President so expressed himself, and Mr. HILLS agreed with him. It may, of course, be, and doubtless is, difficult to define the proper limits of counter practice. A man who has eaten and drunk to excess the previous night dives into the shop of a chemist and asks for a "pick-me-up"; a woman whose child is teething, and consequently irritable and troublesome in a variety of ways, comes for a "soothing" or a "purging" powder; a confirmed dyspeptic demands his weekly soda and ginger draught; and the over-worked office clerk, whose lungs are consolidating or softening in a vitiated atmosphere, wants his dose of morphia "to send him to sleep." In such instances it may be argued that the applicant is in effect the prescriber, and the chemist is merely the dispenser of the article required. But, as Mr. HILLS very properly indicated, the line must be drawn somewhere, and all those who feel pulses, examine tongues, inquire about symptoms, make and declare diagnoses, and *then* dispense so-called remedies, must know, and we believe do know, that they are going beyond the pale of the law. And, as we have already remarked, it is "out of their power to determine whether the malady for which they prescribe is really trivial or the insidious commencement of a serious disease." Baron BRAMWELL in the spring of last year settled the legal aspects of this question very distinctly, and the jury returned a verdict in strict accordance with the ruling. In December, 1876, a penalty of £20 and costs was recovered by the East London Medical Defence Association, in the Court of Exchequer, from a chemist in Green-street, Victoria-park, for illegally acting as an apothecary. And it appears to us that as such prosecutions multiply, so does the position of the defenders become more palpably indefensible.

It may not be precisely in our province to criticise the administrative lines of action adopted by the Pharmaceutical Society. But inasmuch as the proceedings of its Council are duly recorded and published, it is a duty to express our surprise at the decision arrived at on the 1st inst. in reference to this important question. The resolution was put, and carried by twelve as against four votes—a large majority. But the minority included very influential members of the Society. We must remind chemists emphatically that prescribers cannot and will not cease to be dispensers until dispensers cease to prescribe. The Pharmaceutical Society is the only body that can effect this latter desirable consummation. And hence, we would fain hope that so strong and so highly cultivated a body of men will pause before they endeavour to defend that which is universally acknowledged to be an illegal act, and will at the same time take active steps to have defined, as precisely as possible, the limits of counter-practice.

Annotations.

"Ne quid nimis."

THE METROPOLITAN WATER-SUPPLY.

SIR JOSEPH BAZALGETTE, C.B., C.E., Mr. F. J. Bramwell, C.E., and Mr. Edward Easton, C.E., presented to the meeting of the Metropolitan Board of Works, on the 10th inst., a conjoint report on the water-supply of the metropolis, which presents a new view of the subject, and which suggests, we believe, a feasible scheme for early escape from the two chief difficulties which have beset that question. The report was prepared in accordance with a resolution of the Board on the 23rd of March last, and its general result admits of being stated without entering into technical details. The two subjects of pre-eminent interest in the report relate to the improvement of the potable quality of the water-supply, and to the more ready availability of the supply for the extinction of fires. Hitherto the subjects of quality and quantity of the water-supply have been dealt with as one question, and the various engineering suggestions for the improvement of the metropolitan water-supply which have been laid before the Board and the public

have embodied schemes for obtaining a supply from distant sources, as from the Welsh Hills or the Cumberland Lakes, which have repelled public confidence, partly from the enormous cost, and partly from distrust of the means for conveying securely the supply at all times. Or, if the schemes have embodied nearer sources of supply, a grave doubt as to the sufficiency has prevented these being seriously entertained. Mingled with these schemes has been the project that the Metropolitan Board of Works should acquire control over the works of the existing water companies and become the one purveyor of water for the metropolis. By many it has been held that this must be the first step to an effective improvement in the metropolitan water-supply, and that the expenditure of twenty to twenty-five millions of money, which it would involve, would be well repaid by the result. But even a metropolitan board may well stand appalled at having to provide such a sum, and hesitate to enter on an undertaking which would involve so enormous a preliminary expenditure until it was clearly shown that no alternative existed. Moreover, Sir J. Bazalgette and his coadjutors point out that if the Metropolitan Board of Works were to acquire the control of the existing water-works at the sum stated, whatever the improvements which the Board might effect in the general distribution of water in the metropolis, and the condition in which it would be delivered, the questions of its impurity and fitness for drinking, and its availability for the extinction of fires, would remain just as they are. In other words, the two questions which most concern the metropolitan population at the present moment would be unsolved, and would have to be entered upon as much as if the control of works had not been acquired at the vast outlay which would be demanded for them. Putting aside for the moment, then, this question of acquiring control of the existing water-works—important as it undoubtedly is,—the report discusses the conditions requisite for a proper supply of water for extinguishing fires — conditions which the existing water companies are just as unable to meet as the conditions for potability of the supply; and it proceeds to argue that both sets of conditions may be most economically and efficiently met by the establishment of a special supply of water and special service wholly devoted to potability and the extinction of fires. The report, in fact, proposes that for these objects recourse shall be had to the water-bearing strata of the London basin. It is estimated that from deep wells, sunk at distances varying from fifteen to twenty miles from the centre of the metropolis, a supply of unexceptionably pure water may be obtained to the extent of, say, 16,000,000 gallons per day. This quantity would, it is stated, be amply sufficient for the supply of the metropolis with drinking and cooking water (estimated at two gallons per head), also for the extinction of fires. For the scheme involves the pumping of the water to reservoirs on the high lands situated north and south of London at an elevation of from 350 to 400 ft. above Ordnance datum, an elevation which would give the necessary pressure for a proper hydrant fire-service throughout the city. The mode of distributing this special supply to houses is described in detail, and the estimated cost of the whole works is placed at five millions and a half—a sum which, big as it is, seems startlingly moderate after some recent estimates of cost for obtaining the same ends in other ways.

This is not the first time by many that the utilisation of the water held in the water-bearing strata of the London basin for the metropolis has been urged; but then the *total* supply was, we believe, in question, and it has never been shown satisfactorily that the amount to be obtained from this source could be depended upon for such supply. The present proposition is to *supplement* our existing supply from this source, and this would appear to be both a feasible and, having regard to the particular ends to be obtained, an economical measure.

THE VACANT CHAIRS IN THE SCOTCH UNIVERSITIES.

BY a remarkable coincidence there are three vacant chairs in the chief universities of Scotland, one in Edinburgh, one in Glasgow, and one in Aberdeen. The chair of Surgery in Edinburgh is vacated by the removal of Prof. Lister to King's College, London; the chair of Anatomy in Glasgow by the resignation of Prof. Allen Thomson; and the chair of Physiology by the retirement of Prof. Ogilvie-Forbes. The appointments are all in the gift of the Crown, and seldom has the Crown had to discharge the duties of patronage under more responsible circumstances. It is not exaggeration to say that the interests of the Scotch universities may be very seriously affected by the way in which the Crown uses its powers. One admirable appointment has lately been made in the Edinburgh University by the curators, that of Dr. Fraser to the chair which for so many years has been associated with Dr. Christison. Let us hope that the Crown will be as well advised. The retirement more or less immediately of Professor Christison was inevitable. But the loss of Professor Lister comes upon the University somewhat unexpectedly and abruptly, and in the very height of his reputation as a teacher and as a surgical light. His removal shifts the authoritative exposition of a momentous doctrine in surgery from Edinburgh to London. There are many surgeons whom we should be glad to see in Professor Lister's chair, and who would not unfitly fill it, such as Annandale, Bell, Chiene, Duncan, and Watson, of Edinburgh, Bickersteth of Liverpool, George Heath of Newcastle-on-Tyne, &c. But, all things considered, we adhere to our already expressed opinion in favour of Dr. Patrick Heron Watson, who has every quality as a teacher and a surgeon, including a thorough and unprejudiced belief in antisepticism, which can entitle him to succeed Lister, but for whom he would probably have been appointed when the chair was last vacant. Our remarks of last week will indicate our sense of the loss sustained by the Glasgow University by Dr. Thomson's retirement, and the importance of all considerations being disregarded by the Crown but those of fitness. The pecuniary value of the chair is considerable, and so is the professional and scientific status conferred by it. Among those who are ambitious to fill it are Dr. Alexander Buchanan, professor of Anatomy in the Andersonian University and late senior demonstrator of Anatomy in the University of Glasgow; Dr John Cleland, professor of Anatomy in Queen's College, Galway; and Dr. A. Macalister, professor of Comparative Anatomy in the University of Dublin. There may yet be other candidates, and it is early to decide in favour of one. But we cannot lose this opportunity of pressing the claims of Dr. Cleland, whose contributions to scientific anatomy have secured for him a very high reputation. He is a graduate of Edinburgh, decidedly senior in standing to both his competitors, neither of whom would be humiliated by his success, which would certainly tend to maintain the fame of the chair and of the University. The candidates for the Professorship of Physiology in Aberdeen, are Mr. William James Fleming, M.B., lecturer on Physiology in the Glasgow Royal Infirmary School of Medicine, and formerly assistant to the Professor of Physiology in the University of Glasgow, and Dr. William Stirling, demonstrator of Practical Physiology in the University of Edinburgh. Both of these gentlemen are rising and zealous physiologists, and either of them would be likely to make a good

professor. Mr. Fleming, who has been lecturer in Physiology in the Glasgow Royal Infirmary School of Medicine for two years, has produced a very favourable impression by his experiments in physiology, and by his attention to the organisation of physiological laboratories. The Crown may be congratulated on having a variety of choice. But all who have the interests of the Scotch universities at heart, and of medical teaching in them, regard these vacancies with anxiety, and the action of the Crown with interest.

INSANITARY HOTELS.

"DANGERS to health in our own houses" is a subject to which public and professional attention has lately been specifically directed. Another aspect of the same question which, at this season especially, calls for attention is that of dangers to our health in other persons' houses. We refer particularly to the grave sanitary defects which exist in many hotels at which a traveller is almost compelled to stay. Abroad, the condition of hotels is notoriously worse than in this country, and to their abominable defects attacks of typhoid, of diphtheria, and of other forms of blood-poisoning, are very often to be traced. But in this country the condition of many hotels is bad enough. The drainage arrangements are frequently most defective. Watercloseets are placed where they may be convenient of access from the bedrooms, and when they are defective the result is that the sewer gas finds an equally convenient access into the bedrooms. Not unfrequently the closets are ventilated only into the house, or, if there is a pretence of other ventilation, it only suffices to ensure the passage of the water-closet air into the corridors. Our attention was lately directed to such an arrangement in a much frequented hotel, whereby a watercloset emitted a constant current of the foulest air into the house. In almost every hotel the closet mechanism is of the commonest description, from which it is impossible to prevent some bad smell. In a few, but probably very few, hotels the drains are ventilated. Many hotels are built away from regular systems of drainage, and the difficulties of securing due sewerage arrangements are, no doubt, very great; and the water-supply is apt to become deranged. Under such circumstances good earth-closets would be far better than an imperfect watercloset system. Not long ago, at an hotel at one of the most fashionable watering-places, a special apparatus for filling a cistern on the top of the building had got out of order, and the result was that volumes of sewer gas were forced through every closet into the corridors. Another source of contamination of the air in the upper storeys is the existence of sinks, with which the higher floors of many hotels are provided. The sink pipes in most instances pass directly into the drains, and everyone knows how imperfect are the trapping arrangements of most sinks. This is a source of danger which is often overlooked, even when great care is taken about the waterclosets. With regard to the drinking-water at hotels it is hardly necessary to enjoin caution: he must be a rash man who ventures to drink water of unknown quality. Apart from the danger of cistern contamination, there is little reliance to be placed on the statements in guide-books on the subject of the quality of the water-supply. A pertinent illustration of this recently came under our notice in a locality of which the water-supply is described in the guide-books as of remarkable purity and excellence, and where filtering beds are at this moment being made on account of the complaints of the inhabitants of the impurity of the water.

These evils are not imaginary; almost every practitioner can call to mind cases in which disease has been acquired at hotels. What is the remedy? The first point is to awaken the public mind as to the importance of the sanitary condition of hotels. When the hotel-keepers learn that sanitary perfection is necessary to make an hotel "draw," they will soon learn to take all due precautions. Every hotel should undergo periodical, thorough inspection by a competent authority, whose certificate would guarantee the public against at least the ordinary dangers to health. But we would go further than this, and maintain that a certificate of sanitary perfectness ought to be a condition for the granting and renewal of every hotel-keeper's licence; that no one should be allowed to take visitors into a house which was not proved to be free from these unseen dangers to health and life. Surely the preservation of the individual from such physical dangers to which he is unconsciously exposed at the hands of other members of the community is as much a duty of the State as the preservation from moral dangers which is implied in the refusal of licences to "disorderly houses," an epithet much more strictly applicable to those of which we have been speaking.

ALCOHOL IN WORKHOUSES.

A RETURN recently presented to Parliament shows the cost of alcoholic stimulants given, under order of medical officers, as relief in the various unions of England and Wales during the year ending Michaelmas, 1876. The average cost during the year throughout England and Wales was 8s. 7d. per head for in-door paupers, and 7d. for each pauper receiving out-door relief. When it is considered that in-door paupers only cost at the average rate of about twopence per week for alcoholic stimulants, including the amount consumed by sick paupers in the workhouse infirmaries, any charge of wholesale extravagance in the use of intoxicating drinks by our in-door paupers would be found difficult to maintain. This return affords the most satisfactory answer to the outcry that has recently been made on this subject by enthusiastic total abstainers. On other grounds, however, the return affords a valuable contribution to our knowledge of the details of Poor-law relief. The variations shown by this return in the cost of alcoholic stimulants in the various unions are sufficiently remarkable to call for inquiry and investigation, which, it is satisfactory to find, is not being lost sight of by the Local Government Board Poor-law Inspectors. In appears that in the metropolis the cost under this head was 9s. 10d. for in-door, and 5¼d. for out-door, paupers; whereas in the northern division it did not exceed 2s. 11d. for indoor, and 3d. for out-door, paupers. In Newcastle, for instance, the cost was 1s. 4d. for in-door, and 5d. for out-door, paupers; and in Sunderland the figures were as low as 7d. and 2d. respectively. The question is, do the paupers in our northern towns suffer from the small amount of alcoholic stimulant they receive, and if not, do the London paupers get an excessive allowance?

With reference to this subject, Mr. Basil Cane, the Local Government Board Inspector, has recently called the attention of the Sheffield guardians to the extraordinary amount of beer, wine, and spirits consumed in their workhouse. It appears from the return to which we have alluded, that during the year ending last Michaelmas 35,424 pints of beer, 400 pints of wine, and the enormous quantity of nearly 5000 pints of spirits were consumed in the Sheffield workhouse. The cost of these alcoholic stimulants appears to be nearly equal to £1 per head of the in-door paupers, and more than double the average rate either in England and Wales, or in London. Mr. Cane pointed out that the amount of spirits consumed in this workhouse exceeded the amount consumed by all the in-door paupers in Wales during the same year, and that it was equal to nearly thirty-eight per

cent. of the amount returned for the entire West Riding of Yorkshire. Mr. Kemp, the medical officer of the workhouse, has furnished an elaborate defence of this exceptional consumption of spirits, and attributes it, among other causes, to the large proportion of fever patients treated in the workhouse, and also to the fact (which certainly requires investigation) that he is reluctantly obliged to order liberal allowances of stimulants to the under nurses in order to secure their giving proper attention to his patients. It may be presumed that these are pauper nurses, and it appears extremely doubtful whether this system of bribing nurses with intoxicants to do their duty can possibly yield satisfactory results. Sheffield has no hospital for infectious diseases, as have most other large towns; fever patients are therefore all treated in the workhouse. It is impossible to doubt that the Sheffield guardians acted wisely in deciding to ask for an "official inquiry" into the whole subject, and in passing resolutions for the preparation of further details as to the supply of spirits in the workhouse.

DR. DE CHAUMONT ON SANITARY PROGRESS.

DR. DE CHAUMONT'S address at Manchester, as president of the Public Medicine section of the British Medical Association, furnished much material for thought. He selected as his subject Scientific Research in relation to Sanitary Progress, and in the first instance paid a deserved compliment to the work now being carried out with a view to the promotion of scientific sanitary work in India by Dr. Timothy Lewis and Dr. D. Douglas Cunningham. He next touched upon the "endowment of research" as illustrated in sanitary work by the labours of Mr. John Simon, his colleagues, and his successor; but, he observed, important as was the work done by Mr. Simon's staff, it was far too limited in scope for the requirements of the age. "It would have been a movement," observed Dr. De Chaumont, "particularly appropriate for a Government whose motto was "Sanitas sanitatum, omnia sanitas," to extend such inquiries in a much wider circle, and so encourage investigations which can seldom be adequately conducted by means of private resources." We cannot help thinking that Dr. De Chaumont has in these words not fully apprehended the lesson of Mr. Simon's work and retirement in its public relations. It is eminently desirable that this should be clearly understood. Such scientific sanitary work as was done by Mr. Simon and his staff was certainly due to the peculiar position which he held in the Government service, and not from any definite recognition on the part of Government that it was either necessary or desirable. Mr. Simon having retired for his post, the grant for scientific purposes to his department is withdrawn, and we have had the most unmistakable testimony both from Mr. Stansfeld and Mr. Sclater-Booth that a scientific action of the department over which Mr. Simon presided is not recognised. The members of the department are obviously recognised simply as advisers of the central sanitary administration in current sanitary matters, and it must be a mere accident of person and place if they in future import scientific research into their work. Dr. De Chaumont, had he fully understood this, might have said much more and more incisively of the sanitary charlatanism of the Government. Dr. De Chaumont was happy in his vindication of the position of the profession in sanitary work. Nothing is more remarkable in the recent history of sanitary administration in this country than the persistent efforts of both the Central Authority and Local Sanitary Authorities to shunt the medical man in sanitary work. The Legislature has accepted the principle, for which Dr. De Chaumont would contend, of the proper position of the medical man in sanitary administration; but the paradoxical condition now obtains, that the medical man, having successfully fought for due recognition with the Legislature, has now to fight for a proper recognition of the Legislature's behests with the Central Authority as well as the Local Authorities.

A NEW MEDICAL FACULTY IN FRANCE.

BY a law of the 8th December, 1874, was created a mixed Faculty of Medicine and Pharmacy at Lyons; and on the 14th of March and 15th of April last the Administrative Council of the civil hospitals of Lyons, and the Municipal Council of the same city, each held deliberative meetings to determine the hospital service to be assigned to the Faculty for the cliniques of the chairs, and of the supplementary courses. Finally, a decree of the President of the Republic, taking into consideration the offers made by this the second city of France, has just constituted the teaching area, so to speak, of the mixed Faculty of Medicine and Pharmacy of Lyons.

This is to comprehend chairs respectively of anatomy, of physiology, of general anatomy and histology, of pathological anatomy, of medicine (experimental and comparative), of medical and pharmaceutical chemistry, of medical physics, of natural history, of pharmacy, of internal pathology, of external pathology, of general pathology and therapeutics, of hygiene, of therapeutics, of materia medica, of legal medicine and toxicology, of operative medicine, two chairs of clinical medicine, two of clinical surgery, one of clinical obstetrics, one of clinical ophthalmology, one of clinical dermatology, and one of clinical medico-psychology—in all twenty-five chairs.

The instruction will embrace besides two supplementary clinical courses, notably for the diseases of children. The number of *agrégés* attached to the faculty is fixed at twenty-two. Besides the professorial chairs and the supplementary clinical chairs, there will be instituted, as occasion may require, "annexed courses" or "conferences," which will be entrusted either to the *agrégés* or to the doctors. The salaries of the professors and *agrégés* and the special avocations which will be assigned to these functionaries in their quality of directors or heads of laboratories, will be determined by the Minister of Public Instruction in the limits provided by the conventions passed between the State and the city of Lyons. Finally, the Minister of Public Instruction will fix, within the same limits, and according to the requirements of the service, the number and salary of the auxiliary agents of the teaching or administrative departments.

DRESSING.

IT is vain to urge the folly of excessive devotion to dress. In an era of spider-waists, long trains, and high-heels, when the votaries of fashion are not only compelled to rake the past for novelty, but mingle incompatibles in the attempt to produce a new "sensation," the attention bestowed on costume must necessarily be considerable. Meanwhile, why make the obligation of dressing as oppressive as the incubus of dress? Society is a good deal exercised with this question just now; and there are tokens of an endeavour to reduce the regulation number of times a lady is required to change her attire each day in obedience to the demands of custom. It is announced that a sort of blouse has been devised by some ingenious *artiste* which can be worn over a complete costume during the day, and thrown off before dinner, when a bow, tastefully arranged, will render the attire *en règle* for the evening. The notion has a charm of freshness about it which fully justifies the course pursued by a fair hostess on a recent occasion, in providing blouses for the lady-visitors to her country house. Perhaps, if the experiment with this novelty succeeds, there may come a

time when gentlemen will be permitted to disport themselves in smock-frocks over swallow-tails until the evening, when, casting their outer habiliment, they will be ready to dine. Whether it would be wise to abolish the afternoon bath, which proves so refreshing and conducive to comfort and health, may be doubtful, but no question can arise as to the desirability of resorting to some expedient which may obviate the need of dressing more than twice a day, at least out of the season. The tendency of late years has been to extend the usages of town to country, and the rigid rules of seaside sojurn and life at the baths have gradually become more exacting. The task-masters and mistresses of fashion need to be reminded that human nature cannot sustain more than a moderate amount of furbishing up to make it presentable. Health and happiness probably require that the outer man should be refitted twice in his waking hours; but when the process is repeated beyond that limit, it becomes enervating, and is apt to be resented by body and mind.

RECENT URBAN DIARRHŒA FATALITY.

SINCE the end of June the temperature has been almost uniformly moderate, and slightly below the average for the season. The mean temperature during July at the Royal Observatory, Greenwich, was 60·8°, and was 0·8° below the average July temperature during 100 years. The mean was below the average on 24 of the 31 days of the month, and the mean was actually lower than the mean temperature of June. During the first eleven days of August the mean temperature differed but slightly from that of July. This moderate temperature has been very favourable to the public health, judging from the Registrar-General's recent weekly returns relating to the population of about 7,000,000 of persons living in 20 of our largest English towns. The annual death-rate in these 20 towns during the six weeks ending 11th inst. averaged only 20·8 per 1000, whereas in the corresponding periods of the three years 1874–5–6 the death-rate in these towns was respectively 26·3, 23·0, and 24·4. The death-rate, especially in large towns, is at this season of the year governed, in great measure, by the temperature, through its influence upon infantile diarrhœal fatality. During the six weeks under notice 1562 deaths were referred to diarrhœa in the 20 towns, but in the corresponding six weeks of 1876 the number in the same towns was 3672, or more than twice as great. Now, in July, 1876, the mean temperature was so high as 65·9°, and 5·1° higher than that of the more recent July; and, further, whereas the rainfall in July, 1876, was scarcely more than half an inch, it amounted to 2·4 inches during the same period of this year. Moderate temperature and a full average rainfall during July have doubtless saved thousands of lives of infants in England and Wales who would otherwise have fallen victims to diarrhœa. The highest annual death-rate from diarrhœa in the 20 largest English towns in any week since the end of June last has been 2·7 per 1000, whereas in the last week of July, 1876, the death-rate from this disease in the same towns was as high as 6·8 per 1000.

While it is beyond question that cool and wet weather in the height of summer is more favourable to the health of infants than to harvesting operations or to the pleasure of holiday-seekers, it is equally evident that other than meteorological conditions operate powerfully in governing the mortality from diarrhœa. We have pointed out that during the week ending the 11th inst. the average annual death-rate referred to diarrhœa in the twenty largest towns was equal to 2·7 per 1000 persons living; yet the rate in the several towns during the same week ranged from 0·7 and 1·0 in Wolverhampton and Bristol, to 7·1 and 8·4 in Hull and Leicester. Leicester is again conspicuous for its excessive death-rate from diarrhœa, although its general death-rate has recently been satisfactorily low. These wide variations in the fatality of diarrhœa have still to be explained. It is a subject which demands further study and investigation at the hands of public hygienists. If, as seems almost proved, infantile summer diarrhœa is mainly the result of neglect and the misfeeding of infants, it remains to be explained why the intensity of this neglect and ignorance varies so remarkably in different towns, say in Leicester and Nottingham, for instance; and above all, it remains for sanitation to provide some palliation, if not remedy, for this terrible waste of infant life.

SPONTANEOUS FRACTURE IN LOCOMOTOR ATAXY.

IN a recent number of *Le Progrès Medical*, M. Oulmont, *interne* to M. Charcot at La Salpétrière, records a remarkable instance of spontaneous fracture of bones in an ataxic patient. The peculiar affection of the joints which is now so well known to occur in many cases of locomotor ataxy, chiefly through the writings of M. Charcot, has been shown to depend mainly upon a simple atrophy of the articular ends of the bones. It is not unreasonable to suppose that the same atrophic process may take place in the shafts of the long bones, but this is an event of rarity as compared with the "arthropathies." Both, however, depend on the same cause—namely, lesion of the nutritive centres of the joints and bones in the spinal cord, which centres are seated probably in the anterior grey cornua. M. Charcot believes that examples of atrophy in the continuity of bones have been before described (notably by Gurlt), but have been wrongly interpreted. The patient, whose case M. Oulmont now details, is at present in La Salpétrière. She is an old woman, seventy-five years of age, in whom the characteristic ataxic pains commenced as long ago as 1847, chiefly in the lower limbs and in the dorsal spine. For a long time these pains, which in 1848 attacked the upper limbs, and in 1852 were associated with swelling of the right wrist, were unaccompanied by any disorder of movement; nor were there any oculo-motor phenomena, which, it will be remembered, were so prominently described by Duchenne as among the earliest prodromata of the ataxic phenomena. In 1871, however, the patient began to experience a sense of fatigue and weakness in the legs, especially the right; and in 1872 became confined to bed. At this time, the left hip-joint became swollen, crepitation could be felt in it, and there was distinct shortening of the limb. In the present year her condition was, and is (with the exception of the fracture described), much the same. She was bedridden, had a dorsal decubitus, inclined to the right; movements to the left producing pain. There was marked constipation. There was no strabismus, and no impairment of special or general sensibility of the face. There was still much pain in the upper limbs; but no weakness nor ataxy in them, even when the eyes were closed; nor was there any anæsthesia. A soft rounded indolent swelling occupied the lower end of the right radius, without impairing the movements of the wrist, and no crepitation could be felt on passive motion. As to the lower limbs, she was unable to move the left, even horizontally. Passive motion produced acute pain, and marked crepitation could be heard in the hip, which was swollen, so that it was nearly half as large again as the right joint. There was shortening to the extent of from three to four centimetres. There was no inco-ordination of movement of the right lower limb, but great weakness. Sensibility was good except in the soles of the feet, where it was slightly impaired. In the month of May the patient experienced severe pains in the

left leg, lasting almost continuously for eight days. On the 29th she was carried to the next bed for the purpose of having her own bed made. Nothing was noticed then, but the following day a diffuse tender swelling appeared on the anterior part of the lower third of the left leg, the skin over the part being reddened and œdematous. On May 31st both bones of the leg were observed to be fractured at the junction of the middle and lower thirds, the limb forming an angle with its apex directed inwards, whilst the shortening had reached seven centimetres. The patient was not aware of the fracture, which was followed by a rapid diminution of the periostitic signs and disappearance of the pains. On June 13th, when stretching out her left hand behind her head, to reach her ear-trumpet, without moving her body, she felt something give way, and at once lost power in the arm. The humerus was found to have been fractured in its lower third. Here, as in the leg, the fracture had been preceded by severe pains lasting for days and extending from the shoulder to the elbow, and also by diffuse œdema, which, with the pains, passed off after the fracture had occurred.

Mr. Oulmont remarks that none of the ordinary causes of spontaneous fracture were present in this case. It could not be attributed to syphilis, gout, cancer, or mollities ossium. Nor would disuse explain the fragility of the bones; since the arm, at any rate, was well exercised. It depended, then, upon the spinal lesion. He asks whether the pain, and the evidence of osteo-periostitis which preceded the fracture and disappeared after its occurrence, would be explained upon the hypothesis of their being stages, as it were, in the trophic disorder due to the lesion of the spinal nervous centres, and culminating in the fracture of the bones.

SANITARY REPORTS.

DR. CHARLES KELLY, medical officer of health for the combined sanitary district of West Sussex, has recently presented an elaborate and painstaking annual report, the third since his appointment. The combination includes the rural districts of Steyning, Horsham, Petworth, Thakeham, East Preston, Midhurst, and the urban districts of Worthing, Horsham, West Worthing, and Littlehampton. It is a remarkable instance of the eccentric proclivities influencing these combinations that the port of Littlehampton is not included in the arrangement, although, for obvious reasons, effective administration would thus be secured. The plain, unvarnished statements of Dr. Kelly as to the sanitary condition of these districts are worthy the attention of health officers, because they are written in a style comprehensible by all classes. The observations on drainage, sewerage, and water-supply in rural districts are particularly worthy of notice, and he very properly records that "it is better to live in a cottage without a drain at all than to inhabit one of modern construction where the drains carry away all solids and liquids, and in return allow foul gases to come into the house."

Dr. Orme Dudfield, in reporting to the vestry of Kensington on the health of that district during the month of June, comments in no measured terms on the deficiencies of the Public Health (Metropolis) Bill, brought in by Mr. Sclater-Booth, and withdrawn three weeks ago. He points out that the sanitary clauses of the Metropolis Management Acts, the Slaughterhouses Act, and the Water Act are not mentioned, thus omitting all reference to sewerage and drainage, and water-supply. The hospital accommodation clauses, as well as those relating to the regulation of dairies and cowsheds, are also criticised by Dr. Dudfield in detail, and the remarks will command attention when the Bill is reintroduced next session.

Dr. John W. Tripe has, as usual, compiled a very useful report on the sanitary condition of the Hackney district during the past year. One of the interesting features of the report is compressed in a series of recommendations relative to the building of houses on rubbish foundations. As a consequence, the Hackney Board resolved—

"1. That no building be hereafter erected on made ground unless the whole internal area of the premises be covered with a thick layer of good concrete, at least six inches thick, to the satisfaction of the surveyor.

"2. That all drain-pipes passing under buildings so erected, or outside the walls if within four feet thereof, shall be constructed of glazed drain-pipes, embedded in a layer of concrete at least six inches in thickness.

"3. That no building shall be erected on a foundation of house refuse until after a lapse of two years from the time of deposit; or, in the case of any other newly made ground, until the surveyor to the Board or Vestry be satisfied that sufficient time has elapsed for consolidation of the ground, and for cessation of decomposition in the deposited matters."

There are many other interesting features in the report, to which we refer our readers.

Dr. John Tatham has also recently presented his third report to the urban sanitary authority of Salford. This report comprises particulars for the years 1875 and 1876, and forms a handsome volume, the value of the contents of which is greatly increased by the arrangement of the statistical tables, which, as the author remarks, have been revised so as to bring them into uniformity with the admirable forms adopted by the Society of Medical Officers of Health. The forms issued by the Local Government Board are also filled up and annexed.

WASTED LAND.

ALL land which, from any cause, remains uncultivated must be considered waste; but, in a special sense, that which forms part of a tract under tillage of some kind, and is unused, may be described as *wasted*. It is impossible not to perceive that in this snug little island of ours there is far too much ground not only able, but almost in a condition, to produce food for the population, allowed to lie idle. A visit to some of our large military centres would suggest a way in which the odd pieces of arable land abutting on the highways, commons, and heaths in most parishes might, without any encroachment on public rights, or infringement of private property, be turned to useful account and the general advantage. Soldiers in their leisure hours cultivate the small patches of ground scattered around their barracks, with results highly satisfactory. Paupers might be set to the same service in recompense for the relief afforded them out of the public rates. The "labour test" has not been applied to useful purposes. No grievance or wrong would be inflicted on the self-supporting classes by the utilisation of labour in this direction. The cultivation of "waste lands," meaning lands which need to be reclaimed from the sea, or raised to a condition fit for culture, by laborious and lengthy processes, has been frequently proposed, but great monetary and engineering difficulties stand in the way, and there is the objection that works so extensive as these would necessarily be taken out of the hands of the self-supporters. None of these obstacles stand in the way of the measure we propose. Each local authority might arrange with the lord of the manor or highway board to undertake the use of available scraps of land in its district. The money value of crops judiciously grown on such ground would be not unimportant—in some districts it would be very considerable—while the sanitary effect of utilising the ditches and adjacent strips and patches of land would be to render the general atmosphere purer, and rid the country of some of its worst nuisances, which those who ride and drive much in rural districts have cause to dislike.

THE RIVERS' POLLUTION PREVENTION ACT, 1876.

As proceedings under this Act can now be taken, the Local Government Board have recently issued a circular explaining some of its provisions. The offences against the Act are divided into four classes: the pollution of streams (1) by the solid refuse of any manufactory, manufacturing process, or quarry or any rubbish or cinders, or any other waste or any putrid solid matter; (2) by solid or liquid sewage-matter; (3) by any poisonous, noxious, or polluting liquid from any factory or manufacturing process; or (4) by the solid matter from any mine in such quantities as to prejudicially interfere with the due flow of the stream, or by any poisonous, noxious, or polluting solid or liquid matter from any mine other than water in the same condition as drained or raised from the mine. The circular points out the importance to sanitary authorities of the second class of offences, but at the same time adds a rider which, in our opinion, entirely nullifies the utility of the clauses that relate to sewage pollution, and practically leaves the matter as it stood before the Act was passed. It will be remembered that some months ago a deputation, composed of members of the Sanitary Institute of Great Britain, as well as of other influential sanitary reformers from the North of England, introduced by Earl Percy, had an interview with the President of the Local Government Board on the subject, and it was then pointed out to Mr. Sclater-Booth that in effect all the important sections of this Act could be "ridden through" without the smallest difficulty. The President disagreed emphatically with this opinion, and urged the members of the deputation and the public to wait and see how the Act operated. Proceedings against offences committed under the Act may now be taken, and twelve months hence we shall see how many streams in the country have been purified by its provisions.

MILK-TAVERNS.

THERE is obviously no reason why a tavern should be devoted to the sale of intoxicating drinks. The original idea of a "victualler" is more intelligibly realised in the case of a purveyor who sells a nutritive beverage than one who supplies what is, speaking generally, rather stimulating than nutritious. Milk is, in a special sense, sustaining. It forms a prominent element of ordinary food, and comprises most of the elements by which the tissues consumed in exercise may be replaced. It is, moreover, a popular beverage, and one which women and children may share, while few men would fail to appreciate it. Tea and coffee are luxuries in which many do not care to indulge at odd times; nor, as a matter of experience, do they answer the purpose of refreshment in all cases so effectually as milk. Again, milk is the cheaper beverage; it costs less, and it serves a more useful purpose in the economy than any other fluid which can be taken to assuage thirst; while, in the case of persons afflicted with not a few forms of disease, it plays the part of a medical restorative, and as a remedy alone may with advantage be extensively employed. Why not, then, provide "milk-taverns" in the public streets? We venture to predict for enterprising tradesmen who will open these establishments on a liberal scale, in good situations, success of a very high order. To make the experiment a fair one, the house should be as handsome, well appointed, and commodious as a gin-palace, and the position chosen as prominent as can be selected. We should like to see the movement inaugurated as a pure trade, selling milk only—with the usual accompaniments of bread and cheese or butter and biscuits, as in ordinary taverns,—and the description "Milk-tavern" ought to be adopted to distinguish the establishment from a café or tea-shop. The suggestion worthy the consideration of spirited victuallers; and, if adopted in its entirety, dissociated from any other branch of trade, and carried out as proposed, it would, we are convinced, be rewarded with an ample recompense.

SCIENCE TEACHING IN EPSOM COLLEGE.

THE success which has followed the introduction of advanced scientific teaching at Epsom College is remarkable, and must be a source of great gratification to the council. At the recent preliminary scientific examination of the University of London no less than eight Epsom scholars passed, all in the first division. This, we believe, is a larger number than any other school in the country can boast of.

At Oxford and Cambridge still more striking results have been obtained. Six Epsom students have competed for open science scholarships, and not only has every one been successful, but one gentleman actually gained two almost simultaneously, so that seven scholarships have been gained by six students.

We think we may safely infer that Epsom will be one of the few schools that will not be afraid of the new and more severe requirements of the University of London, but will preserve and strengthen the good scientific reputation she has gained.

THE BELGRAVE HOSPITAL FOR CHILDREN.

A SPECIAL meeting of the governors of this charity was held at the end of last month, under the presidency of the Duke of Westminster, to consider the question of amalgamation with the Victoria Children's Hospital, at Gough House, Chelsea. The latter institution has recently been restored and enlarged at a considerable cost, and additional land has been bought for the purpose of building a new wing, when the requisite funds are forthcoming. The President has, as most of our readers are aware, offered to the authorities of the Belgrave Hospital a site near the river, but as a large amount of money would be required to make this site properly available for the purpose, His Grace intimated at the meeting that, on economical grounds, the project of amalgamation should be entertained. Drs. Farquharson and Grigg and Mr. McHardy followed on the same side, but an amendment, negativing the amalgamation, was eventually carried by a small majority.

It appears to us that the supporters of the Belgrave Hospital have, in coming to this decision, acted unwisely, and that in an eminent degree. Vested interests, of course, in this, as in other similar cases, may or may not be worthy of respect. But the Victoria and the Belgrave Hospitals are too close to each other to thrive well as separate establishments, while their union would strengthen the usefulness of both, and greatly raise the status of the institution. We trust that the governors of the Belgrave Hospital will reconsider their decision.

MR. SIMON.

MR. ALFRED HAVILAND, the honorary secretary to the "Simon" Testimonial Fund, sends us a circular that has been forwarded to all members of the profession through the general committee. We announced in June that at a special meeting of the committee, under the presidency of the Right Hon. Robert Lowe, M.P., it was decided that the testimonial should assume the form of a bust in marble for presentation to the College of Surgeons. That meeting was attended by Sir Thomas Watson, Dr. Guy, Dr. Quain, Dr. Farr, and other leading members of the profession, and we trust that both the general as well as the professional public will com-

bine to honour a man who has so ably and persistently advanced the cause of practical sanitary science, official hindrances notwithstanding.

MORIBUND "LUNATICS."

WE think the Hon. Francis Scott was fully justified in bringing before the Justices of Surrey, at Guildford, on Saturday last, the case of a poor woman who died in a cab outside the court-house recently, while in process of removal to an asylum. The practice of removing patients in a dying condition to asylums is growing, and needs to be exposed and repressed. Establishments set apart for the treatment of lunatics ought not to be regarded as depositories for "troublesome" cases which require nursing. It is unfortunate that they are too often viewed in this light by guardians and their officials. In this particular instance, it seems, the Justice to whom application for a certificate of insanity was made demurred, seeing the condition of the patient, and it was while he hesitated the patient died. For one case thus intercepted on the threshold of an asylum, a hundred are passed over the boundary-line, and these doomed inmates fill the beds and tax the resources of establishments professedly maintained for the relief of paupers suffering from mental disease. While this mistaken policy is adopted, it will, of course, be necessary to continue building new asylums, and the "scare" about an increase of insanity will be perpetuated. As a matter of fact, the pressure on asylum space, which forms the principal ground of this belief in the spread of mental disease, is due to the misappropriation of beds, and stagnation, rather than an actual increase, of new cases.

PRINCE ALBERT VICTOR.

WE regret having to report that H.R.H. Prince Albert Victor has suffered a relapse. During the fifth week of the illness, from the 4th to the 11th inst., there was an intermission of the febrile state, and H.R.H.'s condition seemed to promise an uninterrupted convalescence. On Saturday last, the first day of the sixth week, the fever sharply returned, though with moderate intensity. We are glad, however, to be able to add that there have been no local complications, and that the case on the whole is progressing satisfactorily.

EGGS.

AN anonymous but apparently intelligent correspondent of the *East London Observer* calls attention to the abominable trade carried on in bad eggs. According to this writer, all eggs received by the merchant go through a process of "candling,"—i.e., they are held before the flame of a candle, and those with spots are put on one side and sold eventually at the rate of from 2s. to 3s. per 100. It is said that hundreds of these "spotted" eggs can be bought in Whitechapel, the greater proportion of which find their way to the cakeman, and are by him converted into sponge-cakes, "Leamingtons," sweet sandwiches, pound-cakes; or, if the eggs are very bad, farthing sponge-cakes. We commend these facts to the attention of sanitary officers in the Eastern districts of the metropolis.

MR. R. JELLEY, medical officer of health for Totnes, reports a mortality in his district equal to 29·46 per 1000 per annum. This death-rate, exactly equal to the birth-rate, is seriously high, and demands the earnest attention of the authorities. Two deaths from fever occurred in the town, which Mr. Jelley attributes to bad drinking-water. The pumps from which it was derived were ordered to be closed.

A SET of revised bye-laws relating to sanitary work in some of its most important aspects will shortly be issued by the Local Government Board. The following description of the series, although brief, cannot fail to interest the profession and the public. No. 1 deals with the cleansing of footways and pavements, removal of house refuse, cleansing of closets, ashpits, and cesspools. No. 2 deals with the removal of snow, filth, dust and ashes, and the keeping of animals. No. 3 relates to the management of common lodging-houses; 4, new streets and buildings; 5, markets; 6, slaughterhouses; 7, hackney carriages; 8, public bathing; and 9, public baths and washhouses and open bathing places. It is intended to extend the code to the whole range of matters to which bye-laws under the Public Health Acts relate. Urban and rural sanitary authorities will be furnished at once with copies.

WE are asked to state that the Medical Acts Amendment Bill, which was draughted by the (now) Medical Alliance Association, and introduced into the House of Commons by Dr. Lush on the 2nd of May last, withdrawn by him on the 16th of June, and re-introduced by him in an altered form on the 18th of June, was again withdrawn by him on the 6th instant, in consequence of the opposition given to the Bill by Mr. Serjeant Simon. No opportunity was offered for bringing it forward so late in the session for its second reading, but it will be re-introduced into the House by Dr. Lush on the first day of the next session. The Bill bears the names of Dr. Lush, Mr. Grantham, Q.C., Sir Trevor Lawrence, Lord C. Fitzmaurice, and Mr. Ritchie, and has received promise of support from many members of the House.

DURING 1876, 140,438 births were registered in Ireland (at the rate of 26·4 per 1000), and 92,499 deaths, or 17·4 per 1000, the birth-rate being below and the death-rate slightly in excess of the average for the previous ten years. Last year marks an epoch in the later history of the country as being the first for a considerable period in which the natural increase of population, or excess of births over deaths, was not more than counterbalanced by the number of emigrants. An increase of 10,352 appears to have taken place in the population, exclusive of the addition by emigration. The deaths from the eight principal zymotic diseases amounted to 8820, being 9·5 per cent. of the total deaths. Of these, fever caused 2530 deaths; scarlatina 1992; diarrhœa 1828; whooping-cough 1439; measles 593; diphtheria 347; simple cholera 70; and small-pox but 21, against 535 deaths in the previous year.

THE joint committee on State Medicine of the British Medical and Social Science Associations have forwarded to the Premier a memorial in which, after pointing out several defects in the existing law, they recommend that the present distinctions between urban and rural sanitary districts should be removed, and all sanitary authorities be clothed with similar powers; that these powers ought to be extended, in order to enable them to carry out all purposes of local administration within their district; that in each county or division of a county, a representative authority of a high order should be constituted for the execution of joint works, to aid, and in case of default to exercise control over, district sanitary authorities.

AT a recent meeting of the Farnham Local Board the surveyor was instructed to inquire and report as to the cubic space allowed to each person in the hop-pickers' barracks, the privy and water accommodation, and the separation of the sexes during the hopping season. Some opposition arose as to the terms of the instructions; but inas-

much as laws and regulations on this head have been made by the Local Government Board as well as by the local authorities, it is very desirable to know if they have been properly carried out.

THE deaths in London during the week ending Aug. 11th numbered 1293, being 334 below the average in the corresponding week of the last ten years. Small-pox accounted for 20 deaths, measles for 43, scarlet fever for 21, diphtheria for 6, whooping-cough for 29; 15 deaths were attributed to different forms of fever, and 166 to diarrhœa. The mortality from these seven zymotic diseases was considerably less than the average rate prevailing in the second week in August.

MR. JOSEPH J. POPE, staff-surgeon, army (retired), has accepted the post of lecturer on "Health" at the Birkbeck Institution, Chancery-lane. His course of lectures commences October 3rd, at 7 P.M.

Correspondence.

"Audi alteram partem."

"HOSPITAL MORTALITY."

To the Editor of THE LANCET.

SIR,—Mr. A. F. McGill, F.R.C.S., writing in your issue of the 4th of this month, assumes, on the strength of Dr. Steele's figures, which have been largely quoted during the last few weeks, that King's College, St. Thomas's, and University College Hospitals are the most unhealthy of the metropolitan hospitals, and then proceeds to refer their comparative unhealthiness to the assumed fact that "in these institutions the nursing is conducted on what are considered new and improved principles; at St. Thomas's on the Nightingale plan, and at University and King's by sisterhoods"; further remarking that it is not surprising "to find what may be termed 'fancy nursing' lead to results that must be considered eminently unsatisfactory." As regards the mortuary-rate of St. Thomas's, Dr. Greenfield has already shown in your columns that it admits of a different interpretation from that which is here put upon it; and on this matter much more could be said in the same sense if it were worth while. As regards the nursing at St. Thomas's, it is hardly necessary, I should think, to tell anyone, excepting Mr. McGill, that it is not conducted on the Nightingale plan (whatever that may be), but that the matron, and the sisters and nurses under the matron, are all the servants of the hospital, and answerable to the hospital authorities only. It is true that we have also a school for nurses, just as we have a school for medical students; but this school is as much under the control of the authorities of the hospital as is the School of Medicine, and its superintendent is the matron.

I don't suppose that the above statement of facts will modify Mr. McGill's belief in the disastrous results of what he is pleased to term "fancy nursing," for statistics are wonderful things and prove a great deal; but I think most persons will require more positive proof than any he adduces to convince them that good nursing in hospitals tends to raise their mortality. Perhaps Mr. McGill's letter was intended for a joke.

I am, Sir, your obedient servant,

Old Burlington-street, August 11th, 1877. J. S. BRISTOWE.

To the Editor of THE LANCET.

SIR,—I am glad you have recurred to this subject; for, whether my figures be correct or not, nothing but good can come out of the discussion of them.

First of all, let me point out a trifling inaccuracy in your article of to-day, by which you make me say that the total number of beds in Bartholomew's was 710. What I do say is, that this is the number as stated in Churchill's Medical Directory, and at p. 247 of that useful book you will find that it is so. At p. 15 of my book I give my authority.

Again, let me point out that what you call the "activity" of the hospital—a term I am quite prepared to accept from its manifest convenience—is not to be calculated upon the number of beds which a hospital states it has, but upon the number in average occupation. St. Bartholomew's has, according to the statement made in Churchill's Directory, 710 beds; but, according to my returns, only 301·40 are in average occupation. This gives the "activity" of the hospital as 11·11 to that of St. Thomas's, which is only 9·03, there being 347·8 beds in average occupation in the latter hospital, though 572 is the number given in the Directory. This confusion arises from a want of accuracy in the statements concerning hospitals which is much too common.

As to the accuracy of the figures which I give for St. Bartholomew's, I can only say that they were furnished to me by the authorities of the hospital, and if they are not correct I cannot be held to be responsible. I could only use the materials furnished to me. I believe, however, that they are quite correct; for it must be noticed that under the column of "Remarks" a certain exclusion is noted.

Concerning St. Thomas's Hospital, you say, "Surely there should be some very strong ground for presuming that the extra deaths in St. Thomas's Hospital are avoidable." I can only say in answer to this what I have said in my book, that I believe it to be the duty of the authorities of that or any other institution with an excessive mortality to *show*, not merely to *state*, as Dr. Greenfield does, that it is unavoidable. This would be the case in a workhouse, an asylum, or a prison. Why not in a hospital? In St. Thomas's Hospital the amputation statistics are so bad as to be eminently suggestive that the excessive mortality *is* avoidable; and I must here say that I do really think it is too bad of Dr. Greenfield to condemn Dr. Steele's work and mine as "crude masses of figures" without having read them. Mine he certainly has not read, or he would have seen that I have fully acted upon his own view, that "mortality statistics, to be of any value, must be grounded on the comparison of a series of cases of similar nature." I have published the analysis of nearly 5000 amputations from hospital practice, and with this remarkable result, amongst others, that whilst in the Leeds Infirmary there are more than three times the number of amputations, either for disease or accident, or both, that there are in St. Thomas's Hospital, the mortality is better in Leeds in every form and kind of amputation by as much as a hundred per cent. Let Dr. Greenfield study my table on p. 116, and *show*, if he can, not merely *state*, what other causes there can be than defective hygiene to produce such disastrous results in St. Thomas's Hospital. When these results are found to coincide with a death-rate in the total patients passing through its wards nearly double that of Leeds, then I do, indeed, agree with you that it is time an inquiry was made by a scientific commission.

I am, &c.,

Birmingham, August, 1877. LAWSON TAIT.

*** In Mr. Tait's work, St. Bartholomew's is marked as one of those institutions "from which no published reports have been received," and it certainly is surprising that an author, who seeks to draw conclusions of the greatest importance, should content himself with the figures given in the Directory, instead of having recourse to the St. Bartholomew's Hospital Reports, which are to be found in every library. The source from which Mr. Tait gets his bed-number states that the in-patients are 6000 per annum, and Mr. Tait must explain why he selects his facts from different sources. The "exclusion" to which Mr. Tait alludes is the "ophthalmic beds and patients," a statement which would lead one to suppose that the actual number of beds is 736, the number of ophthalmic beds (26) being excluded. If the ophthalmic beds are excluded, so also should the syphilitic (81), and the convalescent (34), which would reduce the number of ordinary hospital beds by 141; so that the number of beds at St. Bartholomew's really comparable with other general hospitals is 569, and the comparable mortality is probably to be considerably raised. We cannot agree with Mr. Tait's remarks about activity, for if his

method of calculation be followed, the apparent "activity" would bear an inverse proportion to the smallness of the number of beds in use, and a direct proportion to the largeness of the bed-margin, an absurdity too glaring to need refutation.—ED. L.

THE DANGERS OF THORACENTESIS.

To the Editor of THE LANCET.

SIR,—The discussion on the treatment of pleuritic effusions at Manchester last week was conducted under such high pressure, and we were so repeatedly warned of the virtue of brevity, that I fear, from the observations of subsequent speakers, the few remarks I made on this subject were more brief than clear, and were somewhat misunderstood; and, as there was no opportunity at the meeting of correcting this misapprehension, I should be greatly obliged if you would allow me to do so now.

What I wished to say was this. 1st. That when a lung, already the seat of tuberculous disease, is compressed by a serous pleuritic effusion, the phthisis will often remain quiescent so long as that pressure is maintained, and that the removal of the fluid by thoracentesis may be followed by rapid progress of the phthisis. Of this fact I am perfectly sure, and I quoted a striking instance. 2ndly. That the conversion of a serous into a purulent effusion, after paracentesis, is favoured by the presence of certain constitutional cachexiæ, as, e.g., the scrofulous cachexia. Of this also I cannot doubt. My statements were in no respect inconsistent with the fact advanced subsequently by the President, that a lung compressed by pleuritic effusion often becomes the seat of tubercle.

Of the influence of the tuberculous cachexia in determining the rate of mortality after thoracentesis, the statistics collected by Dr. Wilson Fox, and circulated at the meeting, offer many illustrations. For instance: Of the nine fatal cases, reported by Messrs. Hughes and Cock, it existed in six. Of Trousseau's seven fatal cases, five were complicated with "tubercle or cancer." Of Kussmaul's eight fatal cases, three were tuberculous. Of six cases operated on in private, and recorded by Dr. West, the only fatal case was a tuberculous one. Of Tutschek's six fatal cases, four were tuberculous. In Oeri's two fatal cases, we are told both "were phthisical," and in both the serous effusion underwent purulent transformations.

But I need not continue to multiply evidence, which exists in abundance, in favour of the view I advocated.

I am, Sir, your obedient servant,

Hertford-street, Mayfair, August 13th, 1877. I. BURNEY YEO.

ANTISEPTIC TREATMENT OF AMPUTATION WOUNDS IN MILITARY HOSPITALS.

To the Editor of THE LANCET.

SIR,—I would ask the favour of a small space in your valuable journal to give voice to a conviction I have long entertained, and which I hope will not be thought an impertinence by the surgical world, in whose ranks my own place is so obscure. I will be as brief as possible.

I had the honour of serving in the Anglo-American ambulance in the war of 1870–71, and saw in our own and other field hospitals much of the unhappy consequences at Sedan and Orleans, particularly the latter. No one, I think, but a doctor who has been personally cognisant of the frightful ravages made by pyæmia and septicæmia in military hospitals can form an idea of the grief, rage, and hopelessness one feels when, on revisiting one of his wards or locales, he sees or hears of one of his amputated patients, who has apparently been doing well up to the sixth day, let us say, and who since his last visit has had the inevitably fatal chill and colliquative perspiration, almost as indicative of his near death by blood-poisoning as if he then lay dead; that doctor, and that one only, knows the strain implied in bidding the poor fellow keep up heart, &c., knowing as he does that, without almost a miracle, his doom is certain. I beg, then, suspension of judgment by surgeons on what I am about to offer as a possible preventive, and that it shall not be considered too crude or unsurgical a proceeding.

Among all the Continental peoples charcoal is largely used, and everywhere available, or easily made. I would suggest then, rude as it may seem, an instant envelopment of the wound whose edges &c. have been secured after amputation, especially of the lower extremity, in a sack or bag (a slit pillow-slip would answer) of charcoal finely powdered, without any other dressing whatever, and a large excess of the same substance around it, this not to be removed under any circumstances (except hæmorrhages, &c.) for some days at a time, and then only by a jet of water from some clean source, and the same dressing immediately reapplied, until the wound is so far advanced toward cure that convalescence is certain, or some contra-indication arises.

This proceeding would not have that extremely neat surgical look of a good dressing, scientifically applied; but I am convinced that in hospitals of this kind it would be infinitely superior in results to the orthodox dressings by the infected hands and armamenta of the ignorant or dirty army nurse or aid. The charcoal may, and, perhaps, *should*, be slightly dampened on the outer surface with some antiseptic fluid, according to the predilections of the attending surgeon; it would at least lessen dust. I am convinced that by this method "pyæmic horror" might be, at least, moderated. The proceeding is so exceedingly simple that I have hesitated to put it on paper, and have waited to see some one else start the idea. I can, however, find or see no analogous advice; that most resembling it, the "earth dressing," seems to be pretty much the same in principle; but this is superior in disinfectant quality, and infinitely easier and better in theory and practice.

In regard to the mortality in field hospitals, &c., I have often, after observing operations and results under the most celebrated surgeons on both sides during the Franco-German war, doubted if, after all, the "cold chop and bucket of hot tar," of the ante Ambrose Paré's time, would not have had better success, at least as far as saving life goes. These remarks are none of them applicable, or only in a very modified sense, to the admirable surgical work and dressings in civil hospitals, where air, instruments, dressings, and assistants are all clean; the latter especially not overworked and careless.

It may be asked, why not have put your ideas into practice when chance favoured? All I have to urge in reply is that I had not the ideas then; there was not much time to think, busied, as some were, from morning to night in the incessant orthodox work of a busy hospital; I have thought long and gravely over it since, and have wished that part of my life to be lived over again, having the assurance in my mind of being able to save many of the brave fellows, German and French, who had to leave their bones there, and whom at the time it made me wild to lose, in spite of what I dare to say, on my part, was devoted but useless attention. In my belief the above treatment would have resulted favourably for them.

Hoping this or summary may find place in your columns, and that some surgeon in this or some future war may give this innovation a small experience,

I have the honour to remain respectfully,

S. SHERWELL,

Clin. Prof. Dermatology, Long Island Hosp. Med. Coll.; Surgeon Skin and Throat Department, Brooklyn Eye and Ear Hosp.; and Ritter des Militär Verdienst Ordens, II. Classe, K.B.

Remsen-street, Brooklyn, U.S.A.

TRAFFIC IN DISEASED MEAT.

To the Editor of THE LANCET.

SIR,—The guardians of the North Dublin Union, in carrying out the provisions of the Contagious Diseases (Animals) Act, have for some time past been selling the carcasses of the oxen killed whilst suffering from contagious pleuro-pneumonia. Whenever our sanitary police detect the carcasses of such animals I inspect them, and, if I consider them unfit for food, apply to the magistrates for an order for their destruction, which is never refused. The guardians sell these carcasses in the second stage of disease, in which the animals' lungs are increased in weight, often to the extent of from twenty to forty pounds, and infiltrated with purulent matter. The guardians allege, in defence of their conduct, that the sale of animals killed whilst affected with contagious pleuro-pneumonia is openly

permitted in England, and they quote Mr. Clare S. Read, M.P., as their authority for this assertion. So far as my inquiries enable me to form an opinion upon this subject, I believe no medical officer of health would permit the flesh of a cow in the second stage of pleuro-pneumonia to be sold as food, if in his power to prevent it; but I would be glad if any of your readers would kindly favour me with the following information:—Is the flesh of animals affected with pleuro-pneumonia allowed to be sold in their districts, and if so, in what stage of the disease? A line from any medical officer of health interested in this matter, addressed to me, would be regarded as a favour by

Yours, faithfully,

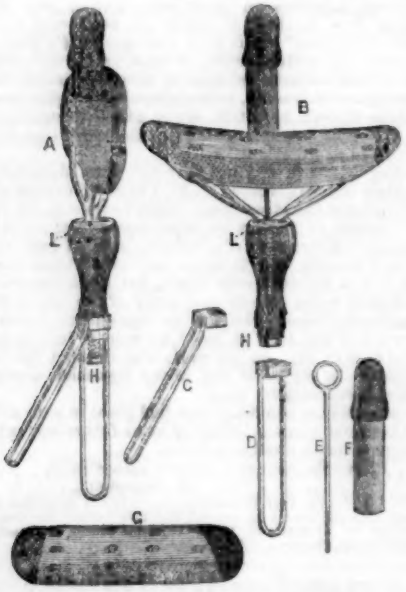
CHARLES A. CAMERON,
Medical Officer of Health for Dublin.

Pembroke-road, Dublin, August 4th, 1877.

COMBINATION PESSARY.

To the Editor of THE LANCET.

SIR,—The accompanying woodcut represents a pessary I have found exceedingly useful in several obstinate cases of uterine displacement, where all other appliances have proved less effectual. It will be seen that it is a modification of "Zwank's," but made so short in the stem that when inserted by the aid of two handles (D, C) it remains wholly within the vagina. An elastic perforated cap (G) supports the prolapsed uterus. If there be retro- version or flexion, a malleable silver wire (E), supporting an india-rubber cap (F) is screwed into the stem posteriorly. This cap, by being



raised or lowered, regulates the height of the upright, or the wire itself can be bent or cut to meet this need, if too long. Anteriorly (L) a similar arrangement meets the difficulty of ante- version or flexion. The support may be varied in form if desired, being more of a T or crutch shape. Frequently the large cap is not needed, and the anterior or posterior upright is all that is required. The nut (H), by being screwed up or down, regulates the extent to which the blades can be expanded; this is, perhaps, scarcely needed, and in later instruments I have not had this affixed. To insert, the patient lies on her back with her knees drawn up. Having closed the instrument with handles fixed (A), and seeing the supports are in correct position, she, if for prolapsus, passes the upright close against the anterior rectal wall as high as possible; then, screwing the key (D) from left to right, the blades open, and let the os uteri fall between; still pressing gently upwards, and steadying with the lateral handle (C), the key is turned as far as needed, bearing backwards at the same time, so as to lever up the fallen body or fundus uteri. If the case be one of anteversion, the support, being fixed in front at (L), is carefully carried in front of the os, and as the instrument is opened, the handle is carried forwards, so as to make the upright act as a lever in the contrary direction to that required for retroflexion.

Those who have tried it are greatly pleased with the facility of insertion and extraction; each night the instrument being placed in Condy's fluid, ready for morning use.

The chief points of the "Combination Pessary" are: 1st. Self-use. 2nd. The os is not bruised by impinging on any hard surface, as in ordinary Zwanks. 3rd. No pessary for self-introduction has, as far as I know, yet met the need of such cases as those of retro- and ante-version, &c., although, doubtless, some one will find out that Shakespeare knew all about it, and had described it fully years ago. 4th. The facility with which the same pessary may be used for the various displacements of the womb.

I owe much to the perseverance and skill of Messrs. Mayer and Meltzer in carrying out and improving upon my original idea.

I am, Sir, yours, &c.,

RICHARD NEALE, M.D. Lond.

Boundary-road, St. John's-wood, August 11th, 1877.

THE ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—Your well-informed correspondent, anent the history of the Army Medical Department in your last issue, has forgotten one very important grievance of army medical officers: I allude to the distinctions made with regard to quarters for officers doing duty with troops and those otherwise situated. At present if a medical officer is ordered to live in barracks, it matters not whether he be a married man with a family, he gets the regulated one or two rooms, according as he ranks as a lieutenant, a captain, or a major; and as he is usually held to be junior to regimental officers living in barracks, I need not say he must take what he can get. Are we a department or not? If we are, let us be treated in the matter of allowances like other departments. I forbear to touch on the present state of discontent which exists amongst the older hands. I fear it is worse than discontent; it has gone on to a state of indifference, and a desire to quit the service in which they have been so worried. And now that there are rumours afloat that the Indian medical service is to replace us, at no very distant date, in India, many will think it wise to seek something in private life before they get too old.

After all, the department might be made very much more content if we were put on an equality simply with combatant staff officers in the matters of exchange, sick leave, horse allowance, and quarters. A medical officer of field rank should be always granted horse allowance (issuable only if he kept a horse), and allowed a soldier as groom, as other staff officers.

Above all, we should be encouraged in the belief that, when we sought it, we should receive advice, counsel, courtesy, and consideration at the hands of our own departmental superiors.

I am, Sir, yours &c.,

August, 1877. MOTUS COMPONERE.

THE UNIVERSITY OF LONDON AND MEDICAL WOMEN.

To the Editor of THE LANCET.

SIR,—As a graduate of the University of London, I trust you will allow me space in your valuable columns for a few remarks on the unfortunate breach now existing between the Senate and Convocation, of which I am a member.

The importance of the subject, and the various obstacles which prevent many medical graduates (myself among the number) from being present and voting at convocation meetings, must plead my excuse for venturing to address you.

I think, Sir, the best thanks of the medical graduates, and, indeed, of the profession generally, are due to our great leader, Sir William Jenner, for his plain and outspoken denunciation of the action of the Senate, and to all those who so ably advocated our rights. The paltry excuse given by the Senate's adherents—viz., that it was compelled to exercise its powers at the request of one woman, shows clearly how weak minded that body must be, and is, as truly described by Dr. Quain, "utter nonsense."

In consenting to take action at such a request, the Senate has entirely overlooked the future welfare of the University and justly aroused the indignation of many of its graduates.

It is to be hoped that no effort will be spared in endeavouring to save our grand University from the degradation which awaits it, if women are ever permitted to graduate in medicine.

I am, Sir, yours faithfully,

August 11th, 1877. A YORKSHIRE PHYSICIAN.

THE HOMŒOPATHIC SCHISM.

To the Editor of THE LANCET.

SIR,—As a sequel to my letter in your journal of the 2nd of June, I shall be obliged if you can insert the following form of resolution; and this I more particularly desire, because my first letter emanated almost entirely from myself, but the present form of resolution has been signed by every one of my school to whom I have *personally* applied, and the names attached are those of our leaders.

The resolution is purely abstract, and the only four gentlemen of your school to whom I have shown it, at once said, "If this represents fairly the views of your body, there can exist no *logical* objection to our extending to you the freest professional intercourse."

Such being the case, and knowing that you guide the profession, I trust you will assist in establishing peace on this basis, believing, as I do, that it comprehends the entire quarrel, and must, if acted upon, end the schismatical element in question.

GEORGE WYLD, M.D.

Great Cumberland-place, August 13th, 1877.

Form of resolution intended to be signed by both parties.

We, the undersigned, believing medicine to be a progressive art and science, hold that it is competent for any qualified medical man to adopt any theory or practice which he believes to be best for his patients. Therefore, the adoption of any theory or practice should not exclude any qualified medical man from the freest professional intercourse provided he does not trade on a distinctive name nor unprofessionally advertise his mode of practice.

(Signed)

Frederick F. Quin, Edward Hamilton, M.D., Hugh Cameron, R. E. Dudgeon, M.D. Ed., George Wyld, M.D. Ed., William Boyes, M.D., Richard Hughes, L.R.C.P.Ed., R. Douglas Hole, M.D., F. Black, M.D.Ed., J. Hamilton Mackenzie, M.D., D. C. Laurie, M.D. Ed., D. Matheson, L.R.C.P. Ed., T. L. Marsden, M.D., T. Engall, M.R.C.S. Eng., Alfred Pope, M.D., R. Dyce Brown, M.D.

*** No *logical* objection could possibly exist to extending free professional intercourse to any properly qualified practitioner who can conscientiously and unreservedly subscribe his name to the above resolution; but it is *logically* inconsistent that such a resolution should emanate from a section of men who are, and long have been, the advocates and champions of a "system" of medicine which has always been judged unreasonable, absurd, and devoid of any scientific foundation, and which is now evidently dying of sheer inanition. If the signers of this resolution had the courage of their opinions, and could bring themselves boldly to give up a profession of the *homœopathic* system, and to cease all connexion with *homœopathic* societies, hospitals, journals, and other publications, they would experience no difficulty in obtaining free professional intercourse, because they would no longer be homœopathists; but they deceive themselves if they imagine that homœopathy can ever be recognised as a part of scientific and rational medicine.—ED. L.

ENEMA APPARATUS.

To the Editor of THE LANCET.

SIR,—I beg to send you a description of an extempore enema apparatus, which is both simple and efficient. It is so readily made that I trust you will consider it worthy of registration in your columns. Two pieces of glass tubing are passed through the cork of a quart bottle, one of them extending nearly to the bottom of the bottle, and the other merely penetrating it; to the latter a piece of gas piping is affixed, about four feet in length, and having an ordinary bone enema-nozzle inserted into its further extremity. It is used in the following manner:—Place a pint or more of enemata into the bottle, and having added the cork, with its appendages, hold the apparatus about three feet above the patient, and invert it. On the fluid contents escaping in a jet, let the elastic tubing be pinched between the thumb and forefinger, close to the nozzle, and this may now be inserted into the anus, when the bottle will be rapidly emptied of its contents. I usually get an attendant to hold up the bottle, but a wooden shelf five or six feet in height could readily be constructed to receive it.

I am, Sir, yours obediently,

J. OUGHTON,

Pembroke Dock, Aug. 9th, 1877. Surgeon-Major, A.M.D.

NEW YORK.

(From our own Correspondent.)

VACCINATION has been reduced to a very perfect system in this city by a legislative Act creating a bureau of vaccination in the Board of Health. Previously to 1874 vaccination was performed only by physicians in private practice and at the dispensaries. The result was that the great mass of new-born children among the poor were neglected, and there was a regular recurrence of an epidemic of small-pox at intervals of three to five years. For fifty years these recurring epidemics found vast numbers of unvaccinated, and the mortality was very great. But the general alarm had the effect of securing general vaccination, and the following year witnessed the good results in an almost complete disappearance of the disease. The epidemic of 1871-2-3 assumed much larger proportions than at any preceding period, and paved the way to legislative interference. Compulsory vaccination is so repugnant to our mixed population that no stringent law could be obtained in this State, but the present law answers an admirable purpose. It provides that the Board of Health shall be empowered to organise corps of vaccinators, appoint the necessary officers, keep suitable records, and by ordinances make such additional provisions as will most effectually secure the end in view—viz., "the more effectual prevention of the spread of small-pox by the thorough and systematic vaccination of all unvaccinated persons." The power was thus given the Board of Health of securing general vaccination. The plan adopted is briefly as follows:—A corps of trained vaccinators was appointed and placed under the direction of one of the most thorough students of vaccination in this city; the city was divided into vaccination districts, and a vaccinator assigned to each. The duties of the vaccinators are daily house-to-house and room-to-room visitation, the vaccination gratuitous of all unprotected persons who will permit the operation, and a careful registration of all the vaccinated and unvaccinated. The virus is cultivated by the bureau, and is now almost entirely bovine. The work has now been in progress upwards of two years, and its results appear in the report of the Director recently made, but not yet published. When the work began we were in the midst of a widespread epidemic, which gradually declined, and within one year disappeared altogether. The number of primary vaccinations performed was 24,395, the rate of success of first vaccinations was 86·5 per cent. in the total number; but one case in the whole number proved insusceptible to repeated vaccinations, and in that case it had been repeated six times. In 145 cases of primary vaccinations complications occurred, and these were serious in but a single case. It is now con-

fidently believed that we shall not witness another epidemic of small-pox, for although vaccination is not compulsory, yet the work of the bureau has become very popular among all classes, and the house visits of the vaccinators are very welcome to the poorest and most ignorant.

New York, July 25th, 1877.

Obituary.

JOHN RICHARD CARMICHAEL, M.D.

THE lamented death of Dr. Carmichael has caused a widespread feeling of sorrow at Chefoo and the other ports in China. The circumstances of his death were of a painful nature. He was engaged attending the sick Chinese refugees who had flocked to Chefoo from the famine-stricken districts in the interior of the Shantung province, when he contracted typhus, and died on the tenth day of the disease. Unfortunately, no medical assistance could be obtained for him until it was too late, and lung complication was followed by rapid sinking. It was well known that the doctor had overworked himself. In addition to the cares of practice in the foreign community, he devoted himself most assiduously to medical and surgical practice among the poor Chinese, and latterly, during the presence of typhus and relapsing fever in the Chinese population from famine, he worked day and night. It may be truly said of him that he was a beloved physician—beloved not only by patients, but by all who knew him. Earnest and devoted to his profession, his name may be worthily enrolled in the ranks of those who have lost their lives nobly in the performance of duty.

E. F. BROADBENT, F.R.C.S. ENG.

WE regret to have to announce the death of this gentleman, at his residence, East Gate, Lincoln. Mr. Broadbent was elected house-surgeon to the Lincoln County Hospital Dec. 1st, 1838, and honorary surgeon in July, 1853. He held the house-surgeoncy for four years, and afterwards went into partnership with Messrs. Hewson and Brook. He was surgeon to the Castle, Lincoln Lunatic Hospital, and Home District of the Lincoln Union. He was also Government Inspector of Factories, and for some years represented the Upper Ward in the Town Council. His numerous appointments afforded Mr. Broadbent large experience in the management of public institutions, in the conduct of which he took great interest, and was indefatigable in his attendance at the boards. His geniality of disposition and the great fund of anecdote that he possessed rendered his company much sought after, and his presence will be especially missed at those scientific and social gatherings of the profession in which he delighted to take part.

Medical News.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent First M.B. Examination:—

ENTIRE EXAMINATION.

FIRST DIVISION.—William Banks, Francis Gotch (B.A., B.Sc.), John Edw. Hine, Angel Money, William Henry Neale, James Isaac Paddle (B.A., B.Sc.), Bilton Pollard, and Harrington Sainsbury, University College; Hutton Castle and Robert Percy Smith, St. Thomas's Hospital; Norman Dalton, King's College; William Hy. Russell Forsbrook, Westminster Hospital; Arthur Franklin, Richard Gill, and Frank Rushworth, St. Bartholomew's Hospital; Robert Hagyard, Leeds School of Medicine; Alfred Ernest Maylard, Edward Penny, and Leonard Chas. Wooldridge, Guy's Hospital; Tiselicsin Wilim Owen Pughe, Liverpool Royal Infirmary and Guy's Hospital.

SECOND DIVISION.—James Balls and Greville Matheson MacDonald, King's College; Gilbert Harry Barling, Wayland Chas. Chaffey, Arthur Jackson, and William Outhwaite, St. Bartholomew's Hospital; Arthur Edward Buckell, Leicester Cuthbertson Ponsford, Mark Feetham Sayer, and Robert Spence Walton, University College; Daniel Colquhoun, Charing-cross Hospital; David Samuel Davies and Henry Jas. Michael, St. Thomas's Hospital; William Whitfield Edwardes, St. Mary's Hospital; Thomas Warberton Fuller, Charles Henry Keep, and William Hale White, Guy's Hospital; Robt. Nightingale Hartley, Leeds School of Medicine; Alfred Harvey, Queen's College, Birmingham; Thomas Hahnemann Hayle and John Hodgson, Owens College; John Davey Hayward and Arthur Cresswell Rich, Liverpool Royal Infirmary.

EXCLUDING PHYSIOLOGY.

FIRST DIVISION.—Thomas Crisp, St. Thomas's Hospital; Cornelius Wm. Suckling, Queen's College, Birmingham.

SECOND DIVISION.—Henry Burry Pullen Burry, London Hospital and University College; George Ernest Fooks, St. Bartholomew's Hospital; George Arieh Herschell, St. Thomas's Hospital.

PHYSIOLOGY ONLY.

FIRST DIVISION.—Charles Edward Beevor, University College; Howard Griffiths Lowe, Queen's College, Birmingham; John Wm. Meek, Guy's Hospital.

SECOND DIVISION.—Frederick Rowland Barker, St. Thomas's Hospital; George Shaw, Westminster Hospital; John Hinks Vinrace, Queen's College, Birmingham; Dawson Williams, University College.

[By an oversight, the name of R. Ernest G. Cuffe (St. Mary's Hospital) was omitted on the 4th inst. from the list of gentlemen who passed in the first division the Preliminary Scientific M.B. Examination of the University of London.]

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine and received certificates to practise on the 9th inst.:—

Blott, Herbert, Bassingbourne.
Clements, William George, Ferresbury, Kent.
Dingle, William Alfred, Millbrook, Southampton.
Masser, Herbert Charles Pickard, Foleshill, Coventry.
Todd, William, Mile-end-road.

The following gentlemen also passed the Primary Professional Examination:—

Charles Richard Bartlett, St. George's Hospital; Frederick Felix Jones, Augustus Kinsey Morgan, and John Twiname Gardner, Guy's Hospital; Malcolm Vincent Stace, Westminster Hospital; Ludham Henry Fuller, King's College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the July examinations the following gentlemen obtained the diploma in Surgery:—

Thomas F. Arthur, William H. Bagnell, Joseph J. Beattie, Thos. V. Bell, Edward Blacker, Jas. Bothwell, Patrick J. Carmody, Henry Charleton, Patrick J. Collins, William R. Cooper, Thomas Curren, Louis Delmege, William G. Evans, David A. Finlay, John R. Hamilton, Wm. De Burgh Hoctor, Mathew Kehoe, Lawrence Kerrigan, Edward G. Leary, William B. Mackey, Bartholomew Madigan, Joseph M'Cann, Edw. P. M'Donnell, John W. Mullen, Robert O'Callaghan, David W. Orr, Daniel O'Sullivan, Benjamin Poirotte, Samuel Russell, Henry R. Sherrard, Thos. P. Sillard, Andrew C. Thompson, Edmund J. Thunder, Thomas G. White, John B. Yourell.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—Mr. William Hall Stowell's (city of Wells) name was accidentally omitted from the list of gentlemen who passed the First Professional Examination for the double qualification of the Colleges of Physicians and Surgeons of Edinburgh.

ASTLEY COOPER PRIZE.—The prize for 1877 has been awarded to the essay bearing the motto, "Facta non Verba," the sealed envelope accompanying which contained the names of Drs. Eulenburg and Gutmann. The subject selected for the next prize is, "The Cranial Nerves, with reference to their anatomy and its relations to surgical diseases and injuries. The essay to be accompanied by preparations and drawings clearly displaying the course and distribution of the nerves, and especially their mutual connections." Essays in competition, written either in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1880, addressed to the physicians and surgeons of Guy's Hospital.

BEQUESTS, &C., TO MEDICAL CHARITIES.—The Queen's Hospital, Birmingham, has become entitled to £200 under the will of Mr. Charles Hallam, and received £100 under each of the wills of Mr. J. T. Habgood and Mr. Richard Powell. Miss Hannah de Rothschild has given £200 to the Metropolitan Free Hospital towards the Jewish wards in the new building. The Royal Albert Asylum for Idiots, Lancaster, has become entitled to £500 (for the Sustentation fund) under the will of Mrs. Crabtree, of Springfield, Rossendale. The Westminster Hospital has received £500 for the Reparation fund from "A Friend to the Hospital." The General Hospital, Birmingham, has received £500 under the will of Mr. John Floyer, £200 under that of Mr. J. T. Habgood, £100 under that of Mr. Charles Hunt, and £100 under that of Mr. Richard Powell. The Charing-cross Hospital has received £140 from the trustees of the Craven Charity. The Sussex County Hospital has received £500 for the Samaritan fund under the will of Miss Gainsford. The Asylum for Idiots has become entitled to £500 under the will of the Rev. Alexander Dixon, of Higham Ferrars. The Corporation of the City of London have given 150 guineas to the Great Northern Hospital.

VACCINATION GRANTS.—The following gentlemen have received from the Local Government Board awards for efficient vaccination in their respective districts:—Mr. J. Strangman Grubb, of Waterbeach, £7 4s. 8d.; Dr. Carless, Devizes, £15 11s. (second time); Dr. T. J. Denton, Steeple Claydon; Mr. Charles E. Walker, 3rd district, Chesterton Union, £8 7s.; Mr. Ray, of Milton, near Sittingbourne, £35 7s. (second grant); Dr. F. Sidney Gramshaw, of Stillington, £4 17s.

APOTHECARIES' HALL, IRELAND. — The following have been elected office-bearers for the ensuing year:—Governor: James Shaw. Deputy-Governor: Henry Nolan. Court of Directors and Examiners: Edward H. Bolland, Thomas Collins, John Evans, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Robert Montgomery, Jerome O'Flaherty, Edward J. O'Neill, George B. Owens, John Ryan, George Wyse. Examiners in Arts: John Moore, Edward Collins. Representative on the General Medical Council: Charles H. Leet.

Medical Appointments.

ALFORD, F. S., M.R.C.S.E., has been appointed a Medical Officer to the Haverstock-hill and Malden-road Provident Dispensary, vice Batterbury, resigned.

ALLEN, E. G., M.R.C.S.E., L.R.C.P.Ed., has been appointed Medical Officer of Health for the Belper Urban Sanitary District.

BARLOW, T., M.D., M.R.C.P.L., has been appointed an Assistant-Physician to the London Hospital, vice Woodman, deceased.

BARTLETT, J. H., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Constantine District of the Falmouth Union, vice Harris, resigned.

BELL, C. E. W., L.R.C.P.Ed. and L.M., M.R.C.S.E., has been appointed Medical Officer for the No. 3 District of the City of Exeter Incorporation of the Poor.

BRASH, E. A., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the No. 2 District of the City of Exeter Incorporation of the Poor.

CARRUTHERS, W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Halton Sub-District of the Runcorn Rural Sanitary District at £50 for one year.

CORY, F. C., M.D., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Chingford District of the Epping Union, vice Skene, resigned.

DEAN, T. N., M.R.C.S.E., L.S.A.L., has been appointed a Consulting Surgeon to the Ardwick and Ancoats Hospital and Dispensary, Manchester.

DOUGAN, G., M.D., C.M., L.M., Q.U.I., L.A.H.D., has been appointed Medical Officer, Public Vaccinator, &c., for the Tartaraghan Dispensary District of the Lurgan Union, co. Armagh, vice Bigger, deceased.

EATON, J. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Wilsford District of the Sleaford Union, Lincolnshire, vice Freeman Eaton, deceased.

ELLIS, J. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Swavesey District of the St. Ives Union, vice Daniell.

FOX, A. E. W., M.B., C.M., has been appointed Medical Officer to St. Catherine's and Bellott's Hospitals, Bath, vice Barter, deceased.

GEORGE, W. H., L.R.C.P.Ed., L.F.P.S.G., has been appointed Junior Assistant Medical Officer to the Metropolitan Asylum District Asylum for Imbeciles, Leavesden, vice Hood, resigned.

HARRIS, J. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the No. 1 District of the City of Exeter Incorporation of the Poor.

HEATH, F. A., M.R.C.S.E., L.S.A.L., has been appointed a Consulting Surgeon to the Ardwick and Ancoats Hospital and Dispensary, Manchester.

HINE, A., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer for the No. 9 District of the South Molton Union, vice Ley, resigned.

HOBSGOOD, S., M.R.C.S., L.S.A.L., has been reappointed Medical Officer of Health for the Swinton and Pendlebury Urban Sanitary District, Lancashire, at £50 per annum.

KEMPE, J. A., L.R.C.P.L., M.R.C.S.E., has been appointed Senior House-Surgeon to the Hospital for Sick Children, Great Ormond-street, vice Cant, appointed Medical Tutor at the Bristol Medical School.

KNOX, D. N., M.A., M.B., has been appointed Assistant-Surgeon to the Glasgow Eye Infirmary.

MACKINTOSH, A., M.D., L.F.P.S.G., has been reappointed Medical Officer of Health for the Whittington Urban Sanitary District, Derbyshire.

MORGAN, T. C., late Surgeon to the Royal Eye Hospital, Manchester, has been appointed Hon. Surgeon to the Sydney Infirmary.

O'FARRELL, G. P., M.D., M.R.C.S.E., has been appointed Medical Officer, Public Vaccinator, &c., for the Boyle No. 1 Dispensary District of the Boyle Union, co. Roscommon, vice Palmer, appointed to the Sligo Dispensary District.

O'MEARA, T., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the Newbold and Dunston Urban Sanitary District, Derbyshire.

PARSONS, F. J. C., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bridgwater Urban Sanitary District, at £50 for one year.

PEACOCK, E., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Nuneaton Urban Sanitary District, vice Pitt, resigned.

PITT, I., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the West Cannock Colliery Sick and Accident Fund, near Hednesford, vice Suffield, deceased.

RIDLEY, J. H. W., M.R.C.S.E., has been appointed Medical Superintendent of the Dunston Lodge Lunatic Asylum, near Gateshead-on-Tyne, vice Blackett, deceased.

STURGE, W. A., M.D., M.R.C.P.L., has been appointed a Physician to the Royal Infirmary for Children and Women, vice Greenfield, resigned.

WEAVER, F. P., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Frodsham Sub-District of the Runcorn Rural Sanitary District, at £50 for one year.

WILLETT, J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Budworth Sub-District of the Runcorn Rural Sanitary District, at £50 for one year.

WOOD, J. B., M.D., has been appointed Medical Officer to the Convalescent Home, Kilmun, Renfrewshire, vice McCalman, appointed Medical Officer for the Ilsley District of the Wantage Union.

WOOD, M. A., L.R.C.P.L., F.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Ledbury District, and the Workhouse of the Ledbury Union, vice Tanner, resigned.

YEATS, W., M.D., has been appointed a Surgeon to the Ardwick and Ancoats Hospital and Dispensary, Manchester.

Births, Marriages, and Deaths.

BIRTHS.

BLOXAM.—On the 13th inst., at George-street, Hanover-square, the wife of John Astley Bloxam, F.R.C.S.E., of a daughter.

BODINGTON.—On the 29th ult., at Ashwood House, Kingswinford, Staffordshire, the wife of G. F. Bodington, M.D., M.R.C.P., of a daughter.

DAVSON.—On the 1st inst., at Maida-vale, the wife of Smith Houston Davson, M.D., of a son.

LEAKE.—On the 11th inst., at Rathkeale House, Girdler's-road, Brook-green, W., the wife of Jonas R. Leake, L.R.C.P.E., M.R.C.S., &c., late H.M.'s 80th Regiment, of a daughter.

LLOYD.—On the 9th inst., at Wick, Bath, the wife of John Daniel Lloyd, L.R.C.P.Ed., of a daughter.

PICKERING.—On the 12th inst., at Rue Aguado, Dieppe, the wife of Thomas Henry Pickering, M.D., L.K.Q.C.P., English Physician at Dieppe (summer), Arcachon (winter and spring), of a son.

STEWART.—On the 10th inst., at Aldershot, the wife of W. Stewart, M.D., Surgeon-Major Army, of a daughter.

THORNTON.—On the 8th inst., at Park-street, Grosvenor-square, W., the wife of J. Knowsley Thornton, M.B., C.M., of a daughter.

WILSON.—On the 12th inst., at Eton-gardens, Hillhead, Glasgow, the wife of John Wilson, M.D., of a son.

MARRIAGES.

EALES—TOMS.—On the 8th inst., at Yealmpton, Devon, by the Rev. W. T. H. Eales, father of the bridegroom, assisted by the Rev. J. Ward, Henry Eales, of Francis-road, Birmingham, to Mary Fulford, daughter of the late T. H. Toms, Esq., of Higham Lodge, Walthamstow, and Eagles Cairnie, Torquay.

EWART—BURDER.—On the 15th inst., at St. Mary's Church, Crumpsall, Manchester, by the Right Rev. the Lord Bishop of the Diocese, assisted by the Rev. Charles Sumner Burder, Rector of Ham, Wilts, and the Rev. Henry Cottam, Rector of St. Mary's, Crumpsall, John Henry Ewart, of Limefield House, Crumpsall, to Josephine Caroline, youngest daughter of John Burder, Esq., of Wilton Polygon, Crumpsall.

KIRKMAN—D'AGUILAR.—On the 2nd inst., at Ashwick, by the father of the bride, assisted by the Rev. G. Taylor, Vicar of Oakhill, Joseph Miller Kirkman, surgeon, of Endon, Staffordshire, to Grace Harriett, youngest daughter of the Rev. J. B. D'Aguilar, Vicar of Ashwick, Somerset, late Chaplain H.M.'s Forces, Bengal. Indian papers please copy.

SPENCER—SAVORY.—On the 15th inst., at St. Mary's, Wendover, by the Rev. Albert Smith, Vicar, assisted by the Rev. E. G. Punchard, Edward Richard Spencer, of Albion-road, Stoke Newington (son of the late Thomas B. Spencer, of Keyston, Hunts), to Isabella, youngest daughter of the late Joseph Thomas Savory, surgeon, of Wendover, Bucks.

TOWNSEND—AINSWORTH.—On the 7th inst., at the Parish Church, Clester, by the Rev. G. H. Ainger, D.D., assisted by the Rev. G. B. Armes, Thomas Sutton Townsend, of Clifton, Warwickshire, and of Queen's-gate, London, to Mary Alice, only daughter of Thomas Ainsworth, of The Flosh, Clester, Cumberland.

DEATHS.

BOWIE.—On the 8th inst., found dead in bed at Jarrat-street, York, Robert Bowie, M.R.C.S.E., aged 43.

HILL.—On the 12th inst., at Barton House, Openshaw, Philip Hulme Hill, L.F.P.S.G., aged 44.

MACDOUGALL.—On the 9th inst., at Birkenhead, William James Macdougall, M.R.C.S.E., aged 56.

RIDSDALE.—On the 6th inst., at Vane-street, York, William Everard Ridsdale, M.R.C.S.E., aged 39.

TAPP.—On the 3rd inst., at Cheltenham, William Deaning Tapp, F.R.C.S.E., aged 80.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Rev. J. T. White: The Four Gospels in Greek.
The Practitioner. August.
The American Practitioner. July.
The Dublin Journal of Medical Science.
The Australian Medical Journal. January.
O. Goldsmith: Asem, the Man-Hater.
Dr. Dunster, on the Use of Obstetric Forceps.
Dr. Gibney, on the Etiology of Joint Disease.
Dr. T. P. Lucas: Laws of Life and Alcohol.
Remarks on the Advantages of Glengarriff as a Winter Health Resort.
The Sanitarian. July and August.
Richmond and Louisville Medical Journal. July.

Notes, Short Comments, and Answers to Correspondents.

DR. BUCKNILL ON CONFESSION.

THE psychologists who recently met at Manchester, under the presidency of Dr. Bucknill, must have been not a little charmed by the address which they heard from the chair. The title of the address, "Confession: the Physician and the Priest," was alone sufficient to attract a multitude. But what shall we say of the matter under the title? We should say that to characterise it faithfully our adjective store requires a refurbish. The address was made up of merits. It was short; it was learned; it was shrewd; it was long-sighted; it was wide in literary range, extending from Tristram Shandy to Bishop Hooker, from Master Gulliver to Herbert Spencer; it was wise and guiding; it was poetical; it was witty; and as it suggested that seven hundred or so of reverend clericals are subjects at this moment for the most earnest attention of mental physicians, we may add that it was all alive with interest to those before whom it was delivered. There are three points really in the address, when its clothes are taken off, which attract special notice. It sagely tells practising psychologists that it is bad practice for them to bury themselves in their asylums, instead of going out into the world to see the general sanity of varied degree there extant. It tells the priest that at present he is not a physician, and that a comparison between obscene priestly books and medical treatises is only just, when the medical books referred to are the poisonous pamphlets of the manly-vigour quacks. Lastly, it informs the priest that confessional practices are not synonymous with methods of medical diagnosis; that the physician is a naturalist, the priest a supernaturalist, and that no sophistry can bridge the abyss between them. This is plain speaking and faithful, and indeed the whole essay is a characteristic utterance by one who knows what he says, and says what he knows. We agree with Dr. Bucknill that, as things are, the distance between the priest and the physician is the distance between the natural and the supernatural. We admit also the extent of the difference. We do not, however, believe that any class of men will for ever stand on the supernatural, and for this reason we differ from him on his most important conclusion. He quotes from Descartes what we should quote also on this subject, that "if it be possible to perfect mankind, the means of the perfection will be found in the medical sciences," in which work, as we think, minister and physician will ultimately find equal occupation, and of the same natural order.

Mr. W. H. A. Jacobson's paper shall appear in an early number.

LIEBREICH'S OPERATION FOR STRABISMUS.

To the Editor of THE LANCET.

SIR,—May I ask you to be so kind as to find a place in your periodical for the following rectification, which, as a former pupil of Mr. Liebreich, I feel it my duty to publish, in order that Mr. Bradenell Carter may, in a second edition of his valuable work on Diseases of the Eye, change the wording of the passage at page 505. In this passage it is stated that Mr. Liebreich's modified method of operating for squint is good as far as it prevents the retraction of the caruncle; but it must be condemned, being the correction obtained in it by one operation on the squinting eye only. Now, from what I have heard and seen in Mr. Liebreich's Ophthalmic Infirmary in Paris, and from what I read in his pamphlet extracted from the *Gazette des Hôpitaux* of the 25th July, 1867, I am in a position to declare that Mr. Liebreich never advocated a large operation on one eye only to correct the deviation of the visual lines in squint; but, on the contrary, he always recommended to divide the effect of the operation by shifting equally backwards the sclerotical insertions of the two recti muscles.

To show clearly what are Mr. Liebreich's ideas on the subject, I cannot do better than quote his own words as printed in the above-cited pamphlet: "Il est d'un grand avantage, pour la symétrie et l'unité des mouvements des deux yeux, de partager l'effet nécessaire en deux opérations, chacune de ces opérations étant successivement pratiquée sur les deux yeux, qu'il s'agisse de strabisme unilatéral ou de strabisme alternant. Les plus grands inconvénients, au contraire, résultant de la répétition de la ténotomie sur le même œil, surtout quand il s'agit de trois ou quatre opérations." And further on, in mentioning the advantages of his method, he says: "Il permet de produire, selon le besoin, la correction de 2''' ..... jusqu'à la correction de 4''' chez les adults et de 5''' et plus chez les enfants. Cependant je ne propose nullement de corriger toujours par une seule ténotomie des strabismes aussi prononcés; je préfère de beaucoup, au contraire, distribuer l'effet sur les deux yeux d'après les règles indiquées par M. de Graefe. Ce n'est qu'exceptionellement que je corrige une déviation aussi forte par une seule ténotomie ....."

In thanking you in advance, and apologising for so much trouble,

I remain, Sir, your obedient servant,

L. MANCHE, M.D.,
Surgeon, R.M.F. Artillery.

Malta, August 3rd, 1877.

X.—The certificate of still-birth is not a very satisfactory basis for proceedings, though the facts should be represented to the Registrar-General. If practice as an apothecary can be proved, or the false use of titles, then the person would be liable to prosecution under the Apothecaries Act or the Medical Act.

Jacques.—A Dermatological Association has been established in America. The first annual meeting of that body is to be held, we believe, at Niagara Falls in the early part of next month. The Secretary is Dr. L. Duncan Bulkley, New York.

X. Y. Z.—The insertion of the card in question in newspapers, or its general distribution, is advertising, and should be discontinued.

AUTOPSY IN A CASE OF DEATH FROM LIGHTNING.

AN inquest was held at the Melbourne Hospital on the 17th February on the body of a man killed by lightning. Dr. Heffernan's account of the post-mortem was as follows:—"On removing the scalp I found a clot of blood about an inch square over the right forehead. On the front of the right hemisphere of the brain beneath the membrane, and corresponding to the bruise on the forehead, there was a thin layer of semi-fluid blood over an area of two and a half inches. The brain-substance was normal. There was a diamond-shaped fracture of the right orbital plate of the frontal bone, but not opposite the external bruise or internal area of blood. The right side of the heart was full of dark liquid blood, and the left side was contracted. All the internal organs were healthy."

H. B.—Our correspondent is entitled to one guinea a day for every day of his attendance in Court. The fees are generally paid after the termination of the case. No objection is likely to be made to paying them.

Terry.—We cannot recommend a particular practitioner.

FEES FOR CAPITAL OPERATIONS IN POOR-LAW PRACTICE.

THE following letter has been forwarded to us for publication:—

Local Government Board, Whitehall, S.E.,
17th July, 1877.

SIR,—I am directed by the Local Government Board to state that they have had under their consideration the grounds stated in your letter of the 10th May last, upon which the Council of the Poor-law Medical Officers' Association base their application for the issue of a General Order, fixing the remuneration of medical practitioners called in to assist Poor-law medical officers in performing capital operations.

The Board have very carefully considered the representations in your letter; but as at present advised, they do not think that sufficient reasons have been adduced to render it expedient to alter the existing regulations on the subject.

The circumstances connected with each of the capital operations referred to in your letter are in practice so different as to render it impossible to lay down a fixed scale of remuneration such as would be just alike to the medical practitioner and to the ratepayer. Moreover, the Board consider that it would be undesirable to encourage the performance in the dwellings of the poor of such serious operations, sometimes involving danger to life, as those referred to. When operations of this nature are performed at the pauper's house, neither the constant care and nursing, nor the means and appliances for carrying the operation to a successful issue, can as a general rule be provided.

For the comparatively few exceptional cases in which it is absolutely necessary for the district medical officers to perform capital operations, and for the right means of dealing with such grave contingencies, the law and the regulations of the Board, as has been already pointed out, appear to make sufficient provision.

I am, Sir, your obedient servant,

(Signed),
HUGH OWEN, Jun., Assist.-Secretary.

To J. W. Barnes, Esq., F.R.C.S., Hon. Secretary to the
Poor-law Medical Officers' Association,
3, Bolt-court, Fleet-street, E.C.

Dr. Healey, (Paris.)—We are not aware of any gathering of medical men in England during the present month other than the annual meeting of the British Medical Association, which has just been held at Manchester.

A CORRESPONDENT asks, What is the best and cheapest one-horse ambulance to carry at least two patients? Who is the maker, and what is the price?

Scalpel.—Renshaw.

M.R.C.S.—The circular is most unprofessional; and if the author does not withdraw it on remonstrance, he cannot complain if his brethren cease to give him a friendly recognition.

Dr. R. Bell, (Glasgow.)—In the course of a week or two.

VIABILITY OF FOETUSES AT THE SEVENTH AND AT THE EIGHTH MONTH.

To the Editor of THE LANCET.

SIR,—Last May I was present at the confinement of Mrs. A. She was only in her eighth month, and had strong bearing-down pains, occurring at regular intervals, and which lasted for eight hours (she previously had spurious pains), when the waters broke, and, being in a very exhausted state, had to be delivered by the forceps. The child, though well developed, was very weakly, so artificial respiration was resorted to, and we had the satisfaction to hear it cry, though they were very feeble attempts. After half an hour it was severed from the cord, and left to my charge. To stimulate it into action I gave it some cask whey at intervals; but in spite of all my treatment its respiration was difficult. Gradually a discoloration took place, beginning in the face, and the child died in twelve hours from asphyxia.

The only way that I can account for the symptoms are, that in the seventh month the Eustachian valve, foramen ovale, ductus arteriosus, and other fœtal structures are in a better state for obliteration than at the eighth month, unless the child is very strong. The consequence is that venous blood traverses the partly obliterated fœtal structures, and mixes with the circulation; so, instead of oxygenated arterial blood wholly, we have also venous blood charged with carbonic acid in the circulation, which accounts for the asphyxia. This, I should think, would be one of the many explanations for the common saying among non-professionals, that a seven-months' child is more likely to live than an eight-months'.

Yours &c.,

August, 1877. J. C. A., L.M.

Delta.—Such a case is published in the *St. Petersburger Med. Wochenschrift*, No. 18, 1877. Dr. Jelenfy claims to have succeeded in restoring the ability to speak to a patient whose true vocal cords had been destroyed by inflammation. The cicatrized growth which had taken the place of the true cords was removed, and the induced current applied to the "false cords" for a period of some months.

Mr. Ladd.—We believe the measure originated with the right hon. gentleman named.

THE PUBLIC HEALTH SERVICE IN AUSTRALIA.

DOCTORS at the antipodes are, like those at home, not free from occasion of complaint with regard to the low estimate placed on the value of public medical services. The Central Board of Health has received from the resident medical practitioners of Richmond, Australia, a memorial protesting against the action of the Local Board of Health in offering the magnificent honorarium of £25 a year for the discharge of the duties of medical officer of health in the town, which is represented as being both large and populous. The Central Board appears to have recognised the propriety of the memorial, and, whilst reminding the local authorities that double the stated salary was given to their medical officer when Richmond was only a borough, has expressed a hope that such a remuneration may be attached to his services as may ensure their being performed in an efficient manner. The *Australian Medical Journal*, in commenting on the matter, remarks: "It seems to us that the Central Board did not by any means understand the exceeding ingenuity of the decision taken by the Local Board of Richmond. Local Boards of Health, as a rule, do not wish their health officer to do too much work; for his activity frets and worries them, puts them to trouble, gets them into collision with the ratepayers, causes expense and suggests inquiry, prompts prosecutions, and altogether is the occasion of things being disturbed out of their ordinary quiet channels. Logically, therefore, as they want nothing done, they offer nothing to those who have to do it. And if local men refuse to take £25 for letting the dirt remain undisturbed, all the better to give it to somebody outside the town who, having no private duties in the town, will have less inducement to come where he is not wanted. They would give no salary at all if they could help it, of course; but the Act compels them to give something, so they offer a bribe to ensure peace and quietness, and let such diseases as are encouraged by filth have their own way. As a matter of course, if they wanted a medical man to work they would offer a salary. Clearly, therefore, the Central Board are dull in not finding out the meaning of the associated body."

THE DE LISLE ALLEN FUND.

THE Hon. Treasurer begs to announce the following additional subscriptions to the above-named Fund, received since our last notice:—

Coates, C., M.D., Bath	£2	2	0
Hill, Berkeley, Esq., London	2	2	0
Page, W. B., Esq., Carlisle	2	2	0
Stephens, H., Esq., Finchley	5	5	0
Whitelaw, W., M.D., Kirkintilloch	0	10	6

MRS. Allen begs also to acknowledge, with many thanks, the following made to her before the formation of the Fund:—

Clark, Andrew, M.D., London	£2	2	0
Critchett, G., Esq., London	1	1	0
Hawkins, Cæsar, Esq., F.R.S., London	2	2	0
Henslow, Rev. G., London	3	0	0
Ogle, J., M.D., London	1	0	0
Paget, Sir James, Bart., F.R.S., London	2	2	0
Smith, Thos., Esq., F.R.C.S., London	5	5	0

Further subscriptions to the Fund sent to the Hon. Treasurer, Dr. Benjamin W. Richardson, F.R.S., 12, Hinde-street, London, W., or to the De Lisle Allen Fund, Union Bank of London, Argyll-place, Regent-street, W., will be thankfully received.

B.—D.'s conduct requires a little further elucidation. Such a friend as C. might be capable of not telling him all the circumstances of the case, omitting perhaps the attendance of B. If D. knew of this, and intentionally called at a wrong hour, he deserves the treatment which he received from the patient, and our correspondent should express a dignified protest against his conduct.

A. R. W. should consult his medical attendant.

PRESCRIBING CHEMISTS.

To the Editor of THE LANCET.

SIR,—Among the advertisements in the *Pharmaceutical Journal* of August 11th, 1877, the following from gentlemen seeking engagements as chemists' assistants appear worthy of notice. The first is from "a gentleman of agreeable business qualifications, gentlemanly appearance, pleasing manners, good address, *good prescriber*." The second is from a candidate, who claims to be "*well up*" *in prescribing* and dispensing. As among those whom these talented gentlemen will prescribe for there may be many who suffer from the premonitory symptoms of typhoid or scarlet fever, it would be satisfactory to know if this, *their own*, testimonial of their ability to exercise the profession of a physician was followed by some reference to those who, in addition to their pleasing manners &c., were able to certify to their ability to prescribe &c. Your constant reader,

August 13th, 1877. OBSERVER.

Caliban.—Mr. Darwin, of Trinity College, Cambridge, recently read a paper before the Statistical Society, in which "Caliban" will find some useful statistics bearing upon this subject.

A Victim should state the special and hard circumstances, and try to get railway expenses allowed in addition to a guinea for each day of his actual attendance in Court.

Mr. C. H. Hickman.—We must refer our correspondent to the notice on page 227 of our last number.

THERAPEUTICS IN CHINA.

To the Editor of THE LANCET.

SIR,—All known information about Chinese materia medica and therapeutics will be found in the *Pharmaceutical Journal* for July and August, 1860; May, July, October, November, and December, 1861; in a series of articles by Daniel Hanbury; reprinted and published by John E. Taylor, London, in 1862. Your obedient servant,

West Bromwich, August 12th, 1877. JOHN MANLEY.

A MIDWIFERY ENGAGEMENT AND THE COUNTY COURT.

THOUGH it is now well understood that a midwifery engagement entitles the accoucheur to claim his fee, it is always satisfactory to record instances in which the fee is allowed. Such a case in the Edmonton County Court is reported in the *Weekly Herald*, in which the plaintiff was Mr. Bunting, of West-green-road, Tottenham. The defendant argued that his wife did not have a doctor in her confinement. The Judge, nevertheless, held the defendant liable for a breach of agreement, and ordered payment of the amount claimed and costs.

Mr. H. L. Browne.—The paper shall be published at an early date.

THE CLIMATE OF VICTORIA (AUSTRALIA) FOR PHTHISIS.

To the Editor of THE LANCET.

SIR,—I have just read your remarks in THE LANCET of March 24th on the above subject, and, as one who has personally experienced the value of this climate for phthisis, I am anxious to see Victoria get fair play, and I am certain that it needs only an impartial study of the vital statistics to prove that Victoria is an excellent sanatorium for the phthisical. Having left Scotland only last year, fearing to face its winter, I have naturally enough made climatology the subject of some little study, and have arranged the statistics of phthisis in Victoria in as simple a manner as possible. The following gives the annual deaths per 10,000 from phthisis for the last eleven years:—

Year.	Melbourne and Suburbs.	The remainder of Victoria, Urban and Rural.	The whole of Victoria.
1865	21·2	10·8	13·08
1866	20·1	9·5	12·35
1867	21·3	8·9	12·30
1868	20·5	7·4	11·11
1869	23·4	8·5	12·81
1870	22·2	8·4	12·51
1871	21·7	7·2	11·39
1872	18·4	8·5	11·31
1873	20·5	8·4	12·4
1874	22·0	8·6	12·66
1875	21·5	8·8	12·60

Melbourne, it will be seen, stands pretty high, but nothing as compared with our great towns at home. For England I have not the figures by me at present; but in the principal towns of Scotland during the years 1855-70 the phthisical death-rate per 10,000 was 35·33, that of Melbourne only about 21. It is not, however, fair to compare Melbourne with our large home cities, it being new, and its population having a density less than 50 per acre, taking only the more central parts. The soil of Melbourne is, however, mostly retentive clay, and water will lie in the colder months lie for days within a few yards of a drain. Damp soil we know is a great factor in the production of consumption; and taking for the phthisical death-rate of the damper soils of rural Scotland, that of Wigtonshire, we get 27 per 10,000, showing Australian city life safer from phthisis than Wigtonshire country life. The dry soils of Scotland, as of Berwickshire, show a death-rate of 14; whereas, excluding Melbourne, the remainder of Victoria, town and country, on soils dry and damp, average under 9 per 10,000! This speaks volumes for the climate. A glance, too, at the figures does not give any support to the statement that phthisis is on the increase in Victoria. The maximum death-rate from phthisis occurred in 1869, and in the country districts the three worst years were 1865-6-7. Melbourne, it must be remembered, has its death-rate increased by invalids from home. Thus in 1875 (the latest returns) 60 per cent. of the inmates of our general hospitals were British born, and of those dying from phthisis probably a much larger percentage. But taking it at 60 only, that of itself reduces the death-rate considerably, more than one-fourth of the deaths from phthisis in Melbourne occurring in its two chief hospitals (127 out of 531).

Having now shown that the climate is really not a phthisical one, I feel at liberty to blame Melbourne, and point out its shortcomings in the matter. Damp soils are fertile as a source of phthisis, and, with a naturally damp soil, Melbourne will not set to work and drain itself. Drainage is the more important, as the great majority of the dwelling-houses are of only one storey, compelling the people to sleep close to the damp soil. Richardson, in his Diseases of Modern Life, notes the frequency of disease among domestic servants, and attributes it largely to their living so much in the lower part of the house. That this undoubtedly causes much of the mortality of Melbourne, is, I think, shown by the death-rate of its wealthier and two-storeyed suburbs as compared with that of the one-storeyed, though by no means poor, suburbs. The latest returns are for 1875, a markedly epidemic year, and the most fatal but one in the eleven years 1865-75. Yet, in spite of all this, Brighton, Hawthorn, and Kew, the three fashionable suburbs, show a death-rate of only 15·46, 18·25, and 15 per 1000; and even this is surpassed by some of the city wards inhabited by the richer citizens, La Trobe ward being as low as 11·25. Compare these figures with the death-rate of Collingwood, a suburb with a working class population of about 21,500, living almost entirely in one-storeyed houses, situated on a damp, ill-drained level, which might be readily made dry; 29·55 per 1000 was its death-rate in 1875, and yet Collingwood cannot be called overcrowded, its density being only about 30 per acre. Melbourne, like London, is broken up into numberless little municipalities; but, unlike London, it has no Metropolitan Board of Works. Its population is now over 200,000, and that of Victoria nearly 1,000,000. For the last eleven years the death-rate has averaged only 15·92 per 1000, and the last five years show a decided decrease on the preceding six, the respective averages being 15·49 and 16·55 per 1000.

I am, Sir, yours truly,

CHARLES D. HUNTER, M.B. & F.G.S.,
Resident Physician, Children's Hospital, Melbourne.

P.S.—Phthisical patients coming here, of course, never, unless very poor, live in these one-storeyed houses, so that they reap the full advantages of the climate, freed from those drawbacks of man's making. I may note, before concluding, that the children, of whom I see many hundreds in my professional work, suffer but rarely from rickets and those diseases of the tubercular group so common at home.

A COMMISSIONER PUZZLED.

THE following episode in a recent meeting of the Runcorn Improvement Commissioners may afford a hint to medical officers of health, in the provinces especially, to avoid as much as possible in their reports the use of words which, though familiar enough to professional men, are calculated to sorely puzzle the bucolic mind. Dr. Mouritz, in his report, recorded the fact of the occurrence in his district of the death of two children from "marasmus." A Member of the Board said "he would like to know what that was.—The Clerk: You had better ask the medical officer.—The Member: What's the use of putting in such words as that; they might have been murdered for aught we know. (Laughter.) It's a most ridiculous thing, for we can't tell how these persons have met their deaths. It will never do. (Laughter.)"

Mr. W. H. Charlton.—Dr. Sayre's address was Brunswick Hotel, Jermyn-street. We are not aware of his present address; but letters forwarded there would probably reach him.

POOR-LAW MEDICAL WORK.

To the Editor of THE LANCET.

SIR,—"R. M. D." is right, and only expresses the sentiments of the majority of right-thinking medical men. Medical work, especially Poor-law is very hard physical and mental exercise; but that is no excuse why it should not be properly carried out. The only point is that the remuneration is not equivalent to the work. A Poor-law appointment often costs twice as much as one receives for it, as I can testify. That, however, is our own fault. If medical men would only insist on being paid separately for each visit, with or without medicine, just as we are paid for vaccinations, it would enable us to do our work properly (for it is often slurred over, not from the will, but because it is impossible to do it and make a living as well), raise the status of the profession, and give us a fair fee. Poor-law medicos would then be able to live as becomes their position, their work would be thoroughly and carefully done, their opinion would carry ten times the weight, and the whole community would be the gainer, whereas the reverse is the case at present.

I leave it to others to suggest how this point is to be obtained; but, till it is, the odium of Poor-law work will continue to degrade the profession.

I remain, Sir, yours obediently,

August, 1877. F. A. B.

ERRATUM.—In Mr. Wm. Foster's letter in our last impression, page 222, 2nd col., line 22, for "20$\frac{1}{2}$ grains of white arsenic," read 120$\frac{1}{2}$ grains, &c.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. B. Yeo, London; Dr. Bristowe, London; Mr. L. Tait, Birmingham; Mr. Jacobson, London; Mr. Mackay, Sunderland; Surgeon-Major Moffatt, Naini-Tal; Dr. Lamson, Ventnor; Dr. Manchè, Malta; Dr. Folson, Boston, U.S.A.; Mr. Parker, Bath; Mr. Browne, West Bromwich; Mr. Procter, York: Mr. Bredin, Chart Sutton; Mr. Bell, Glasgow; Mr. Parker, Birmingham; Mr. Manley, West Bromwich; Dr. Buchanan, Thirsk; Mr. Healey, Paris; Mr. Howell, Paddington; Mrs. Thorne, London; Dr. Sherwell, Brooklyn, U.S.A.; Mr. Page, London; Dr. Daly, Dalston; Mr. Pepper, Barrowden; Mr. Allen, Harrow-road; Mr. Ladd, Ferryside; Dr. Neale, London; Mr. Charlton, Newcastle-on-Tyne; Mr. Whiteton, London; Dr. Charteris, Homburg; Mr. Knox, Hillhead; Messrs. Burgoyne & Co., London; Dr. Dobson, Netley; Mr. Scoffern, St. John's-wood; Mr. Foster, London; Mr. Kershaw, London; Mr. Walker, Fulbourn; Dr. Whitelaw, Cupar; Mr. Cuffe, Old Hunstanton; Dr. Wyld, London; Dr. Coales, London; Mr. Pope, London; Mr. Craig, Eastwood; Mr. Ingpen, London; Mr. Harrison, Liverpool; Mr. Jones, Manchester; Mr. Garrard, Welgate; Mr. Bunting, Tottenham; Mr. Potter, Northampton; Mr. Ray, Milton; Mr. Davies, Lynchburg, Virginia, U.S.A.; Mr. Potter, Northampton; Dr. Thomas, Glasgow; Dr. Fairbank, Doncaster; Mr. Bryden, Stockport; Dr. Medlicott, Wells; Mr. Morgan, Sydney; Mr. Greenwood, Liverpool; Mr. Holtby, York; Mr. Hickman, Seaham; Mr. Wilmore, Stockbridge; Messrs. Gittins and Co., London; Mr. Rigden, Taunton; Mr. Jukes, Halifax; Mr. Long, Lincoln; Dr. Eberle, Easingwold; Mr. Edghill, Manchester; Dr. Gramshaw, Lowestoft; Mr. Buckoll, Nottingham; Miss Harding, Longton; Dr. Leake, Brook Green; G. H.; M.R.C.S.; Observer; F.R.C.S.; A. C. P.; Ubique; Sigma; H. B.; X.; Obstetricus; A Yorkshire Physician; A Victim; X. Y. Z.; B.; Caliban, Birmingham; D. P.; Scalpel; Kappa, London, A. Z., London; A. R. W.; D. C. L., Leeds; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Maclehose, Glasgow; Dr. Stevens, Stoke Newington; Mr. J. K. Thornton, London; Mr. Hopkins, Bath; Messrs. Atkinson and Pollett, Kendal; Mr. Buller, Shaldon; Mr. Eastwood, Blackburn; Mr. Hine, Ilminster; Mr. Terry, Upper Clapton; Mr. Crabb, Rock Ferry; Dr. Thursfield, Bridgnorth; Dr. Coombs, Bedford; Mr. Logan, Newcastle-on-Tyne; Mr. Maggs; Mr. Edger, Kirkby-Stephen; Dr. M'Callam, East Ilsey; Mr. Drayson, Reading; Messrs. Bleeck and Leach, Bath; Mr. Brian, Lancaster; Mr. Wayman, Foulsham; Mr. Davenport, London; Mr. Box, Chirk; Fides, Griff; Medicus, Birmingham; Omega, Brighton; Local Waters, Liverpool; Statim, Gillingham; J. R. H., Winforton; A. B., Pontypridd; A. Z. Manchester; M. D.; Medicus, Yeovil; Æsculapius; Medicus, London; R. S. T.; Dr. K., Yardley Hastings; A. S., Appleby; Epsilon; M. D., Cheltenham; J. W., Camden-road; M. B., Edinburgh; F. R. C. S., Leeds; M. D., Lynn; G. S. I., Paddington; Beta, West Hartlepool; Advertiser, Leamington; Alpha, Shrewsbury; W. B., Wigan; X. Y. Z., Ormskirk; Delta, Liverpool; C. F. N., Stirling; X. Y. Z. 40.

Dartmouth and Brixham Chronicle, Indian Medical Gazette, Tottenham Weekly Herald, Eastern Post, Hornet, and *Macclesfield Courier* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, AUG. 16TH, 1877.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Aug. 10	29·86	W.	58	64	99	71	56	0·09	Cloudy
" 11	29·99	N.W.	56	61	97	69	55	...	Cloudy
" 12	30·06	N.E.	57	62	103	70	52	...	Cloudy
" 13	29·92	N.E.	60	63	102	72	58	...	Overcast
" 14	29·80	E.	63	68	115	81	61	...	Cloudy
" 15	29·94	S.S.W	61	64	110	77	60	...	Overcast
" 16	29·94	W.	60	65	110	76	59	...	Cloudy

Medical Diary for the ensuing Week.

Monday, Aug. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 21.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 22.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 3 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M

Thursday, Aug. 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Aug. 24.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.

Saturday, Aug. 25.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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